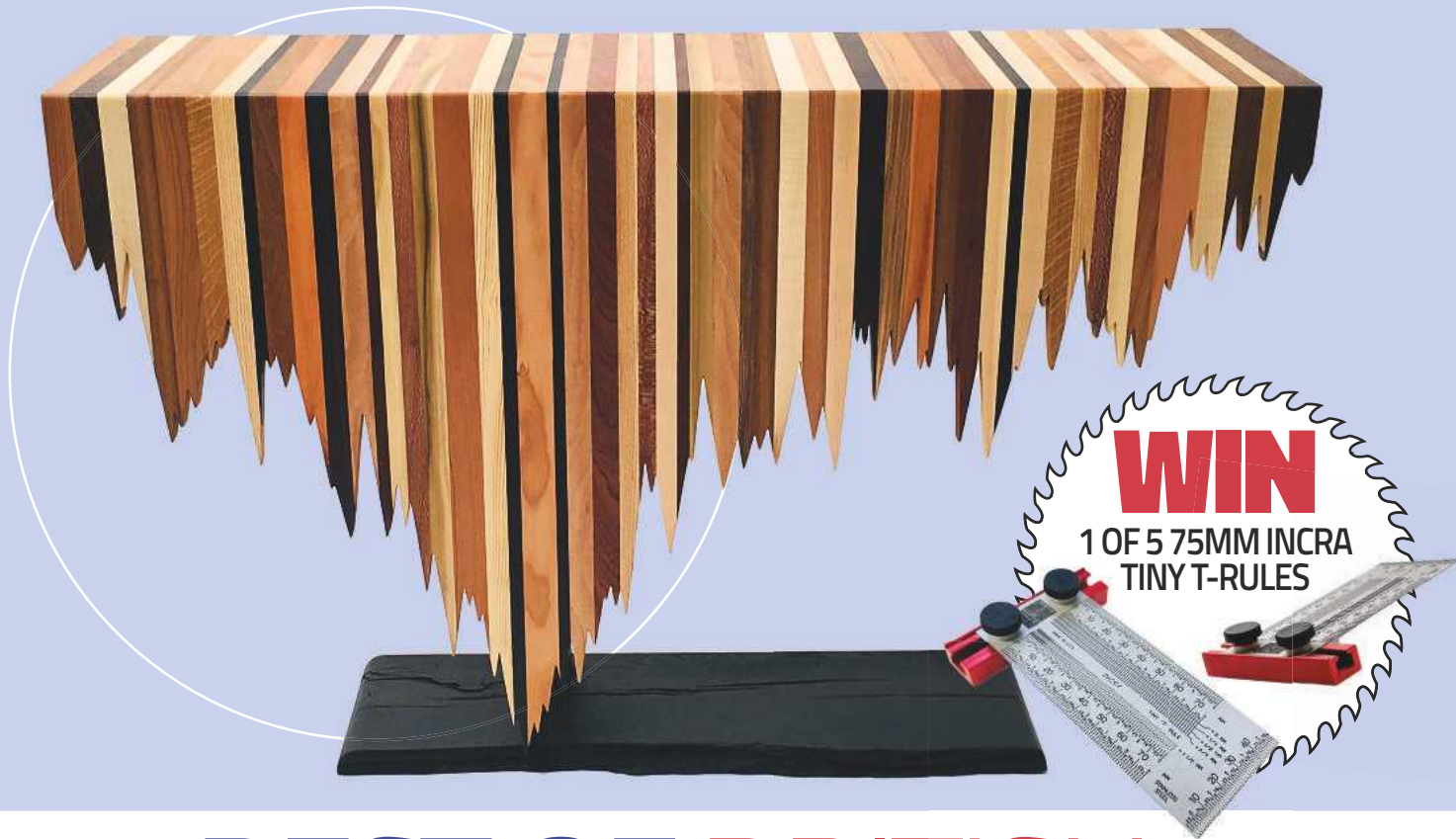


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Welcome

It's always hugely satisfying when the culmination of many weeks, even months, of hard work finally draws to a close, and even better when the end result exceeds expectations. That was certainly the case when it came to the entry deadline for the Alan Peters Online Furniture Award 2021, which seems to have been a long time in the making. The original deadline was in fact scheduled for last summer, but COVID-19 put a spanner in the works and we had to adapt accordingly. As stated in the special feature on page 28, moving the award online actually turned out to be a blessing in disguise, and doing so allowed us to reach a greater number of potential winners. All came good in the end and despite having to rethink things, juggle many different balls and jump through a fair few hoops, we were able to discover a wide range of extremely talented furniture makers, from every corner of the British Isles. Thank you to organiser Jeremy Broun, who worked tirelessly behind the scenes to ensure all came together, and also to our expert judging panel whose critiques were invaluable. But the biggest thank you of all must be extended to our generous sponsors, Axminster Tools and Triton Tools, as without their support the award would not have been able to continue.

The Alan Peters Furniture Award 2022

The good news is that there will be a 2022 award and once confirmed, details will be made available in the magazine and online. From 16 April, head over to www.jeremybroun.co.uk/alanpetersawardceremony.htm where you can enjoy the virtual exhibition and award ceremony.

Woodworking shows & events

With all the excitement of the 2021 award coming to a close and the final five winners being selected from an unprecedented number of entries, the last few months have raced by. It's hard to believe we're almost halfway through the year, and as we face

the summer months and life starting to return to 'normal', there's an understandable sense of trepidation in the air. A question that continues to be raised is whether or not woodworking shows will be taking place. Last year many had to be rescheduled, including the North of England Woodworking & Power Tool Show, 'The' Tool Show, Maker's Central and The W Exhibition, among others. At the time of writing, the 'Harrogate' show still has the green light to go ahead, and we very much hope to see you there from 12–14 November. The best advice I can give, in terms of this event and others mentioned, is to keep checking online for the latest announcements and we'll ensure to deliver any updates as soon as we have them.

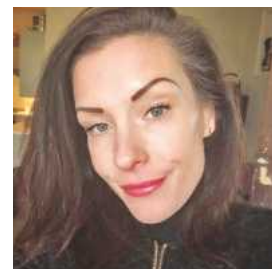
Workshop time

Reflecting on the last 18 months or so, for many, the various lockdowns were viewed in a very positive light. This was certainly the case for Swansea City AFC's Connor Roberts, who was able to enjoy extra workshop time due to the football season being put on hold. The same is true for lots of our readers, many of whom have been busier than ever. As well as making things, workshops have been decluttered, sorted out, and unwanted tools donated to make way for new ones. I'm thrilled the magazine has been able to provide some much-needed entertainment and inspiration during this time and we've absolutely loved being given an insight into your project making, hearing your woodworking tales, and feeling a real sense of connection as a result. Going forward, we're excited to be able to deliver the very best woodworking and woodturning content, and we're extremely happy to have you all along for the ride!

Enjoy!

Tegan

Email tegan.foley@mytimemedia.com



Tegan Foley

Group Editor



Rhona Bolger

Group Advertising Manager



Phil Davy

Technical & Consultant Editor

We endeavour to ensure all techniques shown in this issue are safe, but take no responsibility for readers' actions. Take care when woodworking and always use guards, goggles, masks, hold-down devices and ear protection, and above all, plenty of common sense. Do remember to enjoy yourself, though

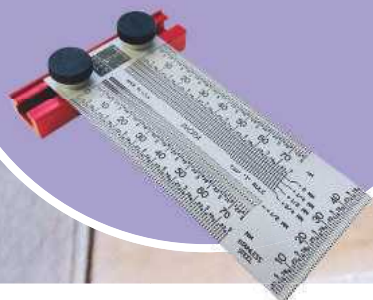
90 FLOATING MANTEL

Having recently rebuilt a fireplace and installed a new woodburner, Phil Davy adds a floating mantelshelf in oak, which finishes things off perfectly



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59 for details



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Geoff Ryan has become quite the boxmaker, so much so that his granddaughter recently commissioned him to make her a miniature chest of drawers

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Hat blanks, timber prep & wet turning

Widely renowned for his wonderful turned hats, in the first of a three-part series on the subject, Andrew Hall begins with timber prep for hat blanks before explaining the process for producing your own headwear



52 A ship off the old block

Home schooling recently gave Beth Pim-Keirle and her dad, Martin Pim-Keirle, the opportunity for a bit of father-daughter woodworking with this simple toy boat. Beth explains how she made it using a scrap of softwood and a piece of dowel

60 The magic of writing

Combining various projects and requiring the use of multiple turning techniques, Philip Bradley shares the design for his unique dip pen wand

70 All at sea

Fibonacci may be the aesthete's golden boy but Mark Griffiths believes the eye can do a better job

83 Spherically-speaking

Les Thorne relies on hand/eye coordination and a couple of jigs to turn his balls round

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Tony 'Bodger' Scott takes a sideways look at sharpening

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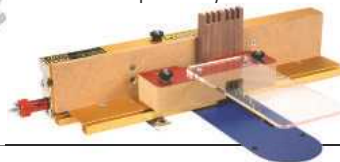
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28 Showcasing the best of British design & making: The Alan Peters Online Furniture Award 2021

We finally unveil the winners of this annual award and their fantastic pieces, alongside an online ceremony and virtual exhibition, organised by Jeremy Broun

42 Wendell Castle: curiosity, playfulness & experimentation

Regarded as the 'Father of Art Furniture', Wendell Castle continued to push the boundaries of functional design over four decades, as Simon Frost discovers



64 Carpentry connection

When he's not crushing the competition playing for Swansea City AFC, right-back Connor Roberts likes nothing better than to kick off his football boots and get into the workshop, immersing himself in his carpentry projects

98 Take 5

This month we bring you another fine selection of pieces by various woodworkers across the globe

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Published by MyTimeMedia Ltd.
Suite 25, Eden House Enterprise Way,
Edenbridge, Kent TN8 6HF
UK and Overseas Tel: +44 (0) 203 855 6105

SUBSCRIPTIONS

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BACK ISSUES & BINDERS

Contact: 01795 662 976
Website: www.mags-uk.com

EDITORIAL

Group Editor: Tegan Foley
Technical & Consultant Editor: Phil Davy

CONTRIBUTORS

Geoff Ryan, Jonathan Salisbury, Robin Gates, Jeremy Broun, Peter Bishop, Simon Frost, Andrew Hall, Beth Pim-Keirle, Philip Bradley, Connor Roberts, Mark Griffiths, Tony 'Bodger' Scott, Les Thorne, Phil Davy

PRODUCTION

Designer: Nik Harber
Retouching Manager: Brian Vickers

ADVERTISING

Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@mytimemedia.com
Tel: 0204 522 8221

SUBSCRIPTIONS

Subscriptions Manager: Beth Ashby

MANAGEMENT

Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@mytimemedia.com
Chief Executive: Owen Davies

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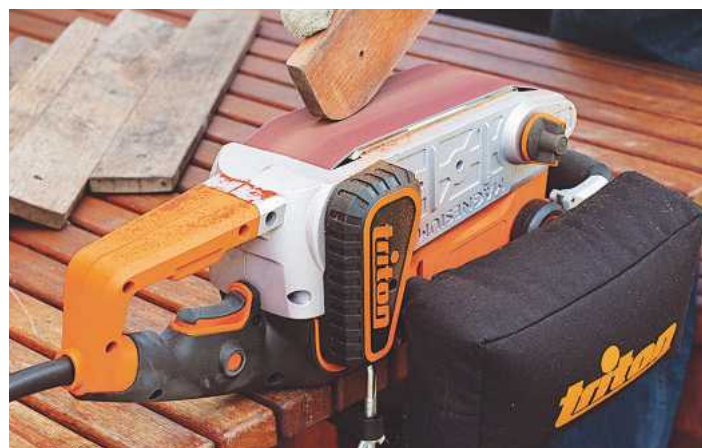


TRITON'S new & improved TA1200BS

Triton Tools, leading brand of woodworking hand and power tools, has redesigned the TA1200BS 1,200W belt sander 75mm. The new TA1200BS uses the same efficient 1,200W motor, but now includes a redesigned roller and belt assembly, along with an anti-friction graphite sanding plate, which transforms the tool into a class leading sander. Featuring an all-new roller assembly, the TA1200BS now extracts and collects up to 30% more dust. A smaller gap between the roller housing and the belt's abrasive surface means this is now much safer for the operator, and also allows for a more refined dust gathering space for the sawdust to be extracted. Another addition is the new anti-friction graphite plate in the sanding base, which significantly reduces heat production during operation, resulting in less tool and paper wear, more sanding time, and, most importantly, a finer finish.

Mark Pearson, Triton Global Brand Manager, says: "The TA1200BS has always been a great belt sander, but we believe this makeover confirms its place as a class leader. We've tested against other top brands and we were very pleased with the results."

Ideal for site work or the home workshop, the sander is supplied with a bench-mounting inversion clamps kit, a dust collection bag and three sanding belts. Visit www.tritontools.com to find your nearest stockist.



WIZARDRY IN WOOD EXHIBITION



Sounding Bowl by Tobias Kaye

Europe's largest exhibition of contemporary and historical woodturning, Wizardry in Wood, returns to the City of London from Wednesday 13 October to Saturday 16 October 2021.

Showcasing work from leading UK woodturners, in addition there will be exhibitions of 400 years of turning in music, turning in magic and pre-historic turning, as well as curated talks on specialist turning subjects. You can also see displays of all the entries and winners of the Turners' Company 2021 Competitions.

Live demonstrations will be taking place at Carpenters' Hall over the five days, including continuous demos of plain turning by Paul Hannaby, Martin Saban-Smith and Pete Moncrieff-Jury; ornamental turning by Jean Claude Charpignon and Bob Wade; and pole-lathe turning by a team from the Association of Pole-Lathe Turners and Green Woodworkers.

Exhibitors

Sally Burnett
Margaret Garrard
Mick Hanbury
Louise Hibbert
Simon Hope
Phil Irons
Richard Kennedy
Carlyn Lindsay
Stuart Mortimer
Gary Rance
Joey Richardson
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Salt and pepper mills by Louise Hibbert

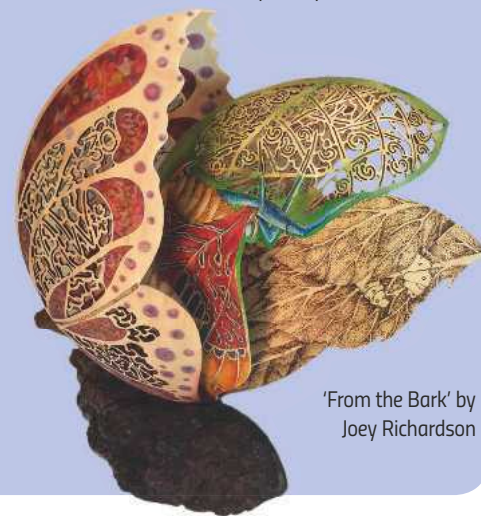
Tickets

The event will take place from 10am-4pm each day, at Carpenters' Hall, 1 Throgmorton Avenue, London EC2N 2JJ. Tickets can be purchased via Eventbrite – www.eventbrite.co.uk – with early-bird prices valid until 31 August 2021.

Prices

Single tickets – £10
Double ticket – £18
Student ticket – Free

For further information on this exciting woodturning event, see turnersco.com/turning/wiw and follow [#wizardryinwood](https://twitter.com/wizardryinwood) on social media.



'From the Bark' by Joey Richardson

The Woodworker Timber Suppliers Directory – May 2021

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GREENWOOD DAYS welcomes back students for 2021

The award-winning Greenwood Days woodland craft centre is looking forward to welcoming people back to the outdoor workshop from 14 April this year. Throughout 2021, there will be nearly 60 courses running, from one-day introductions, which make for a much needed break, or perhaps a present for someone who needs a relaxing 'day in the woods', to a week's holiday making your very own greenwood Windsor chair.

The centre is a large purpose-built outdoor workshop nestling in ancient woodland in The National Forest where some of the country's leading makers can safely teach their craft. Each course is taught suitably distanced and under cover.

Winner 'Best Outdoor Experience' – Leicestershire Tourism & Hospitality Awards 2018 and 2019

Peter Wood – the centre's founder – teaches traditional and contemporary Windsor chairmaking and associated greenwood skills – steam-bending, pole-lathe turning and tool sharpening – and employs some of the country's leading practitioners to offer courses from spoon carving to willow basketry, longbow making to woodcarving. They pass on their

skills and enthuse both amateurs and professionals. Students attend the courses to increase their knowledge, broaden their skill base, or perhaps have been gifted a course as a Christmas or birthday present.

Peter Wood – Greenwood Days Founder

Peter has been a traditional greenwood (pole-lathe) turner and Windsor chairmaker for 25 years. He lives and works in The National Forest supporting the creation of this large woodland both for its amenity value and as a growing material resource.

Seeing the need for a holistic, full circle approach to woodland management, he set up Greenwood Days in 1994 to train people in skills using the wood which comes from these well managed woodlands. The centre and Peter's business have grown over the years and now offer one of the largest ranges of traditional craft experiences in the country, focusing mainly on woodland crafts.

Peter is an award-winning Windsor chairmaker, and has featured in the *Heritage Crafts Association* newspaper, published for London Crafts week, and is also one of their selected makers. He teaches around the country – Lincoln Heritage Centre, The Sylva Centre, West Dean College, guest lecturer at Rycotewood furniture centre, Oxford – and has also been a featured maker for the RHS, where he showed how traditional craft can be used in contemporary making.

Greenwood Days now runs nearly 60 courses for the general public, covering a wide range of skills taught by some of the country's leading practitioners. The centre also hosts specialist courses, one-to-one masterclasses, runs birthday parties for children and adults, stag and hen events, as well as team-building days using these woodland skills.

Course information

Location: Greenwood Days, Ferrers Centre, Staunton Harold, Leicestershire LE65 1RU
Tel: 01332 864 529 / 07946 163 860
Email: peter@greenwooddays.co.uk
Website: www.greenwooddays.co.uk

To see the full range of courses on offer for 2021, visit www.greenwooddays.co.uk/courses

HIKOKI POWER TOOLS UK popular brushless twin pack kits now available with 36V Multi Volt batteries

HiKOKI Power Tools UK has relaunched its popular and cost effective KC18DBFL2 and KC18DPL 18V Brushless twin pack kits with 36V Multi Volt batteries. When running at 36V the BSL36A18 Multi Volt batteries have a capacity of 2.5Ah, and 5.0Ah at 18V, meaning that the 36V battery packs have a capacity of more than 1,000Wh.

The twin packs benefit from HiKOKI's unique Multi Volt batteries, which are setting new standards in cordless freedom. Twin pack users not only have access to HiKOKI's extensive 18V range, but can now use HiKOKI's innovative 36V (MV) range without having to buy new batteries. Intelligent connecting technology makes it possible for the battery pack to detect whether it is being used in an 18V or 36V device, and automatically adjusts the voltage.

KC18DBFL2 18V Brushless twin pack

The KC18DBFL2 18V Brushless twin pack, featuring the DV18DBFL2 18V combi drill and WH18DBFL2 18V impact driver, both with brushless motors, is a cost-effective pack popular with trade professionals. The DV18DBFL2 18V combi drill, with a body length of 189mm and a maximum torque of 70Nm (hard), also benefits from an LED spotlight, metal belt clip and a forward and reverse switch. It features a metal chuck with ratcheting

lock and a soft grip handle for comfort. The WH18DBFL2 18V impact driver, featuring a brushless motor, has a body length of 126mm and a maximum torque of 172Nm (hard). The tool has a M5-M16 bolt capacity as well as an LED spotlight, metal belt clip and forward and reverse switch.



KC18DPL2JBZ 18V Brushless twin pack

The KC18DPL2JBZ 18V Brushless twin pack features the DV18DBXL combi drill, with a maximum hard torque of 136Nm, 22 stage torque selector and heavy-duty Röhm chuck. This is paired with either the WR18DBDL2 impact wrench, or WH18DBDL2 impact driver, both with brushless motor and IP56 water and dust protection. The WR18DBDL2 has a maximum hard torque of 305Nm and 1/2in square drive. The twin pack is also available with the WH18DBDL2 version of the impact driver, featuring a triple hammer action, which provides a buttery smooth feeling when driving home screws and bolts.

The twin packs are covered by HiKOKI's three-year warranty, which can be extended to five years with HiKOKI's industry leading Hi5 warranty scheme, subject to terms and conditions, adding even more peace of mind for professionals.

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MAKITA expands XGT '40V' range of high performance cordless tools

Makita has expanded its high performance 40Vmax XGT range with the addition of three new tools. The new rotary demolition hammer, 216mm slide compound mitre saw and 230mm angle grinder all feature Makita's highly efficient brushless motor technology and have been engineered to bring the benefits of cordless technology to high-demand applications.

HR005GZ01 40VMax Brushless rotary demolition hammer

The powerful HR005GZ01 40VMax Brushless rotary demolition hammer offers rotary hammer and hammer only operating modes and is compatible with SDS-MAX chisels, drill bits up to 40mm and core bits up to 105mm. It features a variable speed trigger and delivers speeds of up to 500rpm and up to 2,900bpm of hammer action.



The HR005GZ01 also includes features to make it easier and safer to use. This includes Active Feedback sensing Technology (AFT), which protects the user by shutting down the tool if the rotation speed reduces suddenly. It also features the soft no-load function and Anti-Vibration Technology (AVT) to reduce the levels of tool vibration and therefore extended safe trigger times, resulting in a vibration level of just 5.0m/s² when hammer drilling.

LS002GZ01 40VMax Brushless 216mm slide compound mitre saw

The versatile LS002GZ01 40VMax Brushless 216mm slide compound mitre saw features an easy to set mitre range of 60° to both left and right as well as a 48° bevel range in each direction, making it easy to achieve the required cut. It also includes Makita's Deep and Exact Cutting



Technology (DXT), which allows the accurate cutting of large workpieces. The LS002GZ01 offers improved dust collection when fitted to an extractor, soft start and constant speed control functions, as well as an electric brake to stop the blade in seconds, every time, for greater safety.

GA038GZ07 40VMax Brushless 230mm angle grinder

The final new addition is the GA038GZ07 40VMax Brushless 230mm angle grinder. The 230mm wheel diameter makes this the largest angle grinder in the XGT range and is ideal for highest demand applications. The GA038GZ07 is also easy and comfortable to use with an ergonomic soft grip on the tool body and a side handle that can be mounted on the left or right based on user preference. The wheel cover position can be effortlessly adjusted without the need for tools, making work easier and faster.

To maximise user safety and comfort, the new grinder has been engineered for low levels of vibration so it can be used safely for longer periods. It also benefits from the AFT system, includes an electric brake to stop the wheel quickly when the motor is switched off and an anti-restart function, which prevents accidental start-up.

Auto-Start Wireless System (AWS)

The three new additions to the XGT range also include Makita's brushless motors and Auto-Start Wireless System (AWS) functionality when fitted with an optional AWS chip. The efficient brushless motor minimises friction and wasted energy within the machine for better performance and extended run-times. The innovative AWS function allows the tool to connect to compatible dust extractors via Bluetooth. The wireless connection means the dust extractor can run automatically while the tool is in use, facilitating simple dust management for a cleaner and healthier environment.

Kevin Brannigan, Marketing Manager at Makita UK, said: "Our XGT range of 40VMax tools offers all the benefits of cordless power, such as greater flexibility and improved safety, for the highest demand tasks in the toughest environments. The launch of these tools is the latest in a series of new XGT products introduced in recent months as we continue to invest in product development to give customers greater choice."

The HR005GZ01 rotary demolition hammer, LS002GZ01 216mm slide compound mitre saw and GA038GZ07 230mm angle grinder are all currently available to purchase as body-only, with options including batteries and chargers to be launched soon. To find out more about Makita's range of high performance XGT tools, see the website:

www.makita.com.



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For more information and to see the latest deals for yourself, visit www.screwfix.com, or call 03330 112 112.

New V33 decking protection

V33, specialists in innovative surface coatings for over 60 years, have launched a new range of products offering high protection, a beautiful finish and great value for money. Featuring two decking oils, a decking paint and a preparation product, the new range covers



everything you need to ensure your decking is water-repellent and UV-protected, while also looking great for longer.

Decking Oil

Decking Oil is what to choose if you wish to feed, protect and enhance the natural beauty of old or new exterior decking. While both decking oils in the new range are UV- and water-resistant, one also offers anti-slip properties, unlike other comparable options currently available. This particular oil, called V33 High Performance Decking Oil, is a quick-drying, water-based version, ensuring long-lasting protection against sunlight and temperatures of -100°C to +350°C. It is available in four colours and offered in 2.5 or 5L tins – 1 litre covers 12m². It is priced at £34 for the smaller size and £50 for the larger one.

V33 UV-Resistant Decking Oil is solvent-based and efficiently protects and revives decking. It is available in four different colours in the same tin sizes and priced at £31 for 2.5L and £46 for 5L. 1 litre covers 8m². Both High Performance and UV-Resistant Decking Oil formulations leave wood with a beautifully natural, translucent finish.

Decking Paint

The V33 range's Decking Paint provides a great two-in-one decorating and protecting solution. With its five-year guarantee, it is longer-lasting than most other decking paints, making it exceptional value for money. Affording anti-slip properties, it leaves a beautiful, washable surface with a matt, opaque finish that disguises wood imperfections. Available in 2.5L tins and priced at £42, it is offered in five colours and one tin covers 25m².

The new range's decking preparation product is called Tough Deck Clean & Revive. Two factors make it particularly good value for money: it has a high performance and affords an impressive 30m²/L coverage. Its formulation enables rapid and efficient removal of mould, mildew and black spotting, thereby cleaning up decking beautifully and leaving it ready for a new finish to be applied. Available in 2L bottles, it is priced at £16.

V33's new specialist range of decking products is available through B&Q; for more information, see www.v33.co.uk.

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TWO NEW FLAGSHIP CORDLESS DRILLS FROM FESTOOL

MANUFACTURER: Festool

D&M GUIDE PRICES: See our website

FESTOOL

Two new flagship cordless drills from Festool – QUADRIVE TPC and TDC 18/4 – are replacing their successful QUADRIVE PDC and DRC 18/4 predecessor versions. Both of these new products are powerful, versatile and, with four speeds, perfectly equipped to take on any application. Their sophisticated switching concept provides the correct torque and speed for any application.

Whether working on wood or metal, the new QUADRIVE TDC 18/4 cordless drill is extremely durable and, thanks to its brushless EC-TEC motor, promises extreme resilience and endurance alike. The new QUADRIVE TPC 18/4 percussion drill is just as powerful and versatile, and even impresses when drilling into masonry thanks to the axial impact feature that can be switched on. Both powerhouses can be combined with a large number of practical attachments, with perfectly matched accessories, making them unrivalled first-class drills for a wide range of possible uses. What about your hand twisting dangerously if the tool suddenly jams? There's no need to worry as the intelligent new kickback stop minimises the risk of this happening.

The robust four-speed metal gearbox meets every need and impresses with its enormous power and high speeds. It can handle even the greatest of loads without any issues. Another clever addition is the fully optimised switching concept, which allows users to quickly switch in any direction as required, making it possible to move from any gear straight to another on the new TPC and TDC, without intermediate stages. This saves time and adds to the already ergonomic handling. Fixed stops enable clear engaging when switching, allowing fast downshifting to be achieved at any time as required.



NEW



NEW TSC 55 K & TS 55 F PLUNGE-CUT SAWS FROM FESTOOL

MANUFACTURER: Festool

D&M GUIDE PRICES: See our website

FESTOOL

Festool has provided the best plunge-cut saws on the market for many years. Joiners/carpenters, kitchen fitters, exhibition stand fitters, interior finishers, as well as parquet and floor layers, drywallers and painters can look forward to new plunge-cut saws from Festool from April 2021. From now on, the plunge-cut saws will allow sawing to be carried out twice as fast, and the TSC 55 K cordless plunge-cut saw will be available immediately with unique and innovative KickbackStop technology.

Kickback is the most common cause of serious injuries when using a plunge-cut saw. Should this occur when sawing and plunging into the workpiece, the intelligent KickbackStop technology ensures that the sawblade stops in the blink of an eye. This prevents the backwards motion of the saw, which not only protects the workpiece but also ensures the risk of injury is kept to a minimum.

This results in maximum cutting performance combined with perfect cutting quality. There is no noticeable difference in performance between the TSC 55 K and the corded TS 55 F models; this is due to a combination of the latest generation brushless EC-TEC motor technology and the dual battery system (2 x 18V), making the new TSC as impressively powerful as a mains-powered version, while providing full mobility.



TSC 55 cordless plunge saw



TS 55 mains plunge saw

NEW

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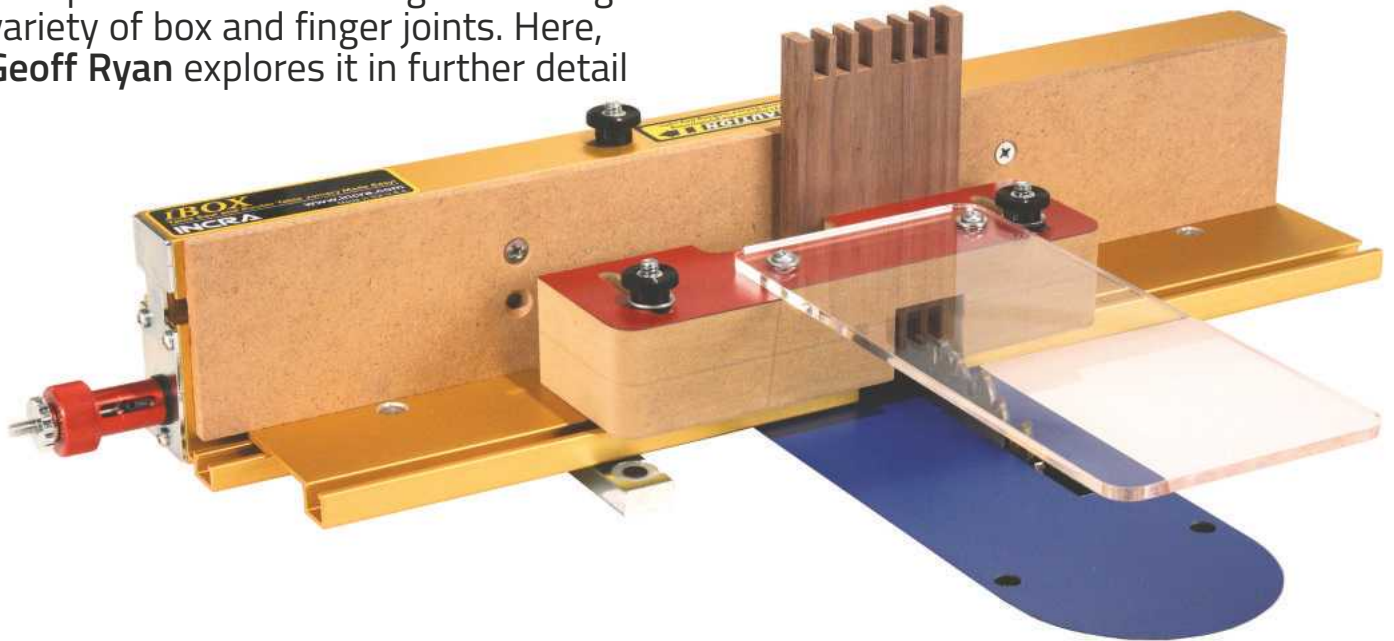


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INCRA I-BOX JIG

The **INCRA I-Box Jig** from **Wood Workers Workshop** is the most advanced tool ever produced for creating a stunning variety of box and finger joints. Here, **Geoff Ryan** explores it in further detail

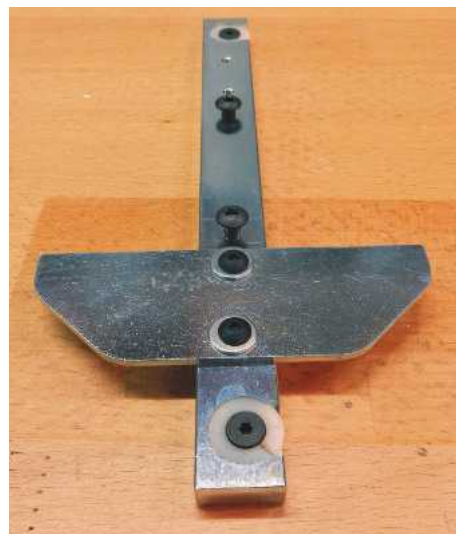


As much as I like the look of dovetail joints, there are times when a box joint is a good choice. It's a strong joint due to the glue surface area



1 The jig arrives neatly packaged and contains all you need to get started, including an excellent owner's guide and a DVD. As it's made in the USA, everything is stated in inches but this makes no difference to its use. The jig can be used on table saws – a $\frac{1}{8}$ in wide blade would cut $\frac{1}{8}$ in fingers, but anything wider needs a dado blade – or a router table provided there is a $\frac{3}{8}$ in (19mm) mitre slot on either side of the blade/bit position. In the UK, table saws that accept a dado blade are a rare thing, so I can only cover the use on a router table. Box joints from $\frac{1}{8}$ in up to $\frac{3}{8}$ in (3.175mm to 19mm) are possible – any two-fluted straight router bit with a diameter between these limits can be used provided it's long enough to cut the depth of joint you require – the diameter of the bit determines box joint size. This photo was taken after I'd used the jig several times and the sacrificial backing board, provided, has been used on both edges. The owner's guide provides dimensions for making a new one and MDF would be a suitable option

and, executed well, can enhance the look of a project. I've made several box joint jigs over the years and there are a lot of YouTube videos, as well as various online content, explaining how to make them. Unfortunately, I had limited success with mine and eventually gave up. I do have an INCRA Original Jig, which I regularly use for dovetail joints, and this allows fine adjustment of through dovetails to achieve a close-fitting joint. While this jig also caters for box joints in a wide range of sizes, there's no way to micro-adjust the joint, which means it's not always a perfect fit. There's also a maximum width limit of 200mm.



2 The mitre – or miter in American English – bar comes factory set to 90° but can be adjusted if necessary. At each end a nylon expansion disc allows adjustment to fit the mitre slot with no slop. The bar is then fitted to the bottom of the jig

Great customer service

The INCRA I-Box Jig has been around for a while and there's a wide range of online reviews, and INCRA also have some excellent video guides on

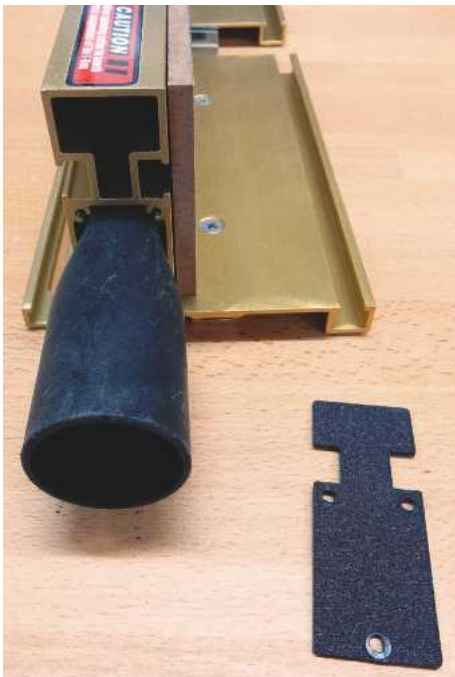


3 The jig itself has a clever mechanism: the red knob at the right-hand end, which once set to just 'kiss' the edge of the router bit being used, adjusts easily to the width of a test cut and at the same time exactly sets the position of the next. Even more important is the ability to easily fine-tune a fit to make it tighter or looser. Once you've set this, it's locked in place and won't require any further adjustment until you change the router bit for another size. INCRA recommend the use of 6in (150mm) wooden hand-screw clamps for holding the workpiece in place. I already had some 10in (250mm) clamps but bought a further two 150mm sized ones to use with the jig. Here you can see the first test cut about to be made on some spare stock. Note the clear blade guard, which is long enough to cover a table saw blade. I did make a shorter guard but went back to the longer one as it offers additional protection. Much of the material cut is thrown forward by the rotation of the router bit, so fixing a dust hood to the table took care of this. I imagine this wouldn't be a problem on a table saw due to the direction of rotation



4 Here you can see the stock butted up to one of the jig's 'fingers' ready for the first cut. After every cut, I noticed that some chippings landed on the stock ledge. This needs to be blown out each time, otherwise, when the stock is moved along, it won't be seated properly on the ledge and therefore out of alignment

their website. As I was about to start a project involving the construction of six large drawer boxes in birch ply (see 'Evie's box' article on page 32), I took the plunge in October 2020



7 When I first started using the jig, I noticed that the hollow body section on the side nearest the router table fence had completely filled up with sawdust. Again, this appeared to be caused by the router bit's direction of rotation. I removed the plastic cap on the end of the hollow section to clean it out and realised I could insert a short crevice tool from my shop vac into the opening. This solved the problem and you can see the vacuum hose in **photos 11 & 12**

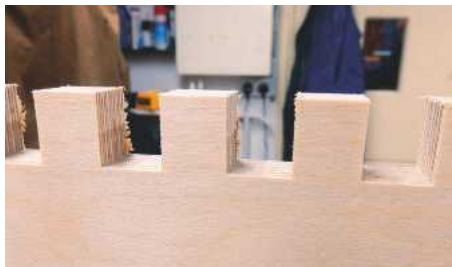


5 Due to rotation of the router bit, the side against the sacrificial fence cuts cleanly but the outer side (shown) can look a bit ragged. In practice this hasn't proved to be a problem with solid wood, but when I came to cut plywood, it was a major issue and therefore required a solution – see later

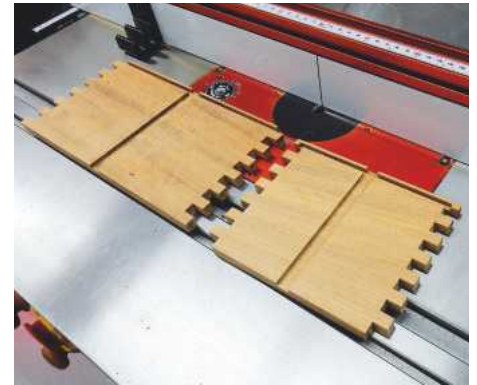
and ordered the IBOX from Wood Workers Workshop. Over the last few years, I've bought a number of items from them and have been pleased with the service they provide. The only time I've had a problem was when a package arrived damaged – although this was dealt with politely and swiftly and a replacement received within two days. Great customer service like this means you're happy to shop again!

Health & safety

The supplied blade guard works reasonably well, but you need to maintain good practice and keep fingers and tools away from the spinning router bit. Adding side pieces to the guard would



8 & 9 Problems with the quality of cut arose when I tried to use plywood. The face against the fence was fine but the outer face was badly torn up. This is a good quality 19mm birch ply and I was using a good quality new 16mm diameter bit. I had a look at the INCRA website to see if there were any specific tips but, as there were none, I emailed technical support. I received a reply the same day and they suggested I needed to fit a sacrificial board on both sides of the stock board as the router bit rotation was causing the ply to break up. This wouldn't be a problem on a table saw with dado blades, due to the direction of cut

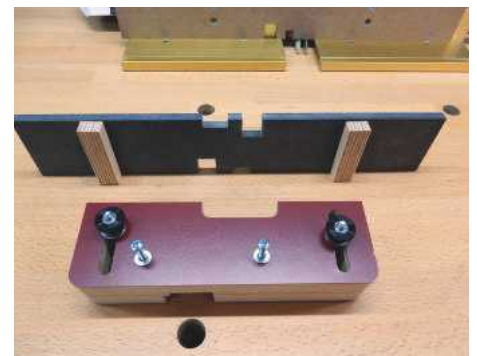


6 The stock shown in **photo 5** cleaned up with a light sanding and here you can see two sides of a box ready for glue-up. The box joints were cut using a 10mm diameter router bit, so in theory making your stock width an odd multiple of 10mm should provide a balanced look. For this project, I wasn't too bothered so there's a finger at one end and a gap at the other. The owner's guide suggests making your stock slightly wider than an odd multiple then trimming to size afterwards. Alternatively, the DVD provides guidance on centring and other techniques

reduce the risk. There's no included extraction and it's down to the user to determine the appropriate solution. I'll be looking at replacing or modifying the rear blade guard to include dust extraction instead of sticking a hose up the end of the body extrusion.

Conclusion

Overall, based on my experience of using the jig in a router table, I'm very happy with the I-Box Jig and will be using it in many future projects. I think it's fair to say that this jig is ideally used on a table saw with a dado head. Use on a router table requires a little more care, but excellent results can be achieved. It's not a quick jig to use as the stock has to be unclamped, repositioned, and re-clamped for each cut, but, with practice,

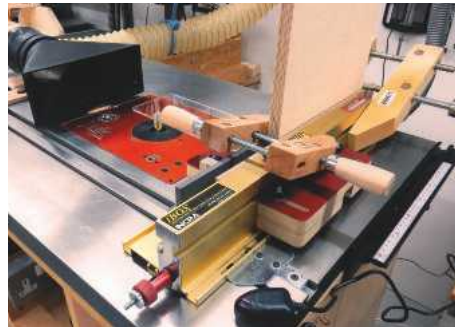


10 The sacrificial board attached to the fence doesn't move as it's fixed in place. There's no means provided to fix an outer sacrificial board but the solution was simple. Once set up, the blade guard block isn't moved, so I fitted a board using two offcuts of ply glued in position with a dab of hot-melt glue. These prevent the board from moving side to side. In this case, the board I used was an offcut of Valchromat, which could be described as 'posh MDF'. While it has some similarities to MDF, it's a far superior product, and therefore more expensive, but it is safer, easier to work with and also available in a range of colours



11 Here you can see a 560 x 280 x 19mm plywood panel being machined and, despite the weight of the panel and clamps, the jig remained stable in use. The front sacrificial board can be seen in place. Due to the size of the board, a 250mm clamp was used as well as a 150mm one. The vacuum hose can be seen on the far side of the jig – I had to remove the router table fence to give clearance for the hose

speed of operation improves and this can be seen in the included videos where a skilled operator gives a very slick demonstration. It's possible to cut two pieces of stock at a time, which will speed up the process. The owner's manual makes no mention of the problems encountered when cutting plywood on a router table, and this would be a useful addition, although I didn't find it difficult to overcome this problem. ✂



12 The owner's guide recommends that when stock is first clamped into the jig, a pencil line should be drawn on it along the top of the fence. When the stock is repositioned for later cuts, this line provides proof it's been seated properly and isn't sitting proud

14 These six plywood drawer boxes measure 55 x 28cm and required a total of 816 finger cuts to be made. It was a lot of work but the result is a strong and, in my mind, attractive joint. Alternatives could have been pocket-holes or lock-mitre joints, both of which I use when appropriate



13 When making box joints, it's usual practice to make them slightly longer than needed and trim the excess off after glue-up. This can be done using a block plane or sander, but if there's a lot of material to remove, or a lot of boxes to be processed, using a bearing-guided router bit is quicker. To trim the first set on each corner, I made a 'jig' from some ply with fingers cut to the same dimensions as those on the box. These were trimmed back a little to allow clearance for glue residue. The jig is then clamped on top and provides a flat surface for the router. After routing flush, a random orbit sander finished the job



SPECIFICATION

- Use the I-Box Jig on your table saw or router table to cut great looking box joints with a stacking-type dado blade, dedicated box joint blade set, or straight router bits
- Reversible design works on either side of the cutter
- Exclusive dual-pitch lead screw mechanism for fast micro-adjusting and a broad $\frac{1}{8}$ - $\frac{3}{8}$ in range of pin widths cut into $\frac{1}{4}$ -1in thick timber
- Free one-hour instructional DVD covers basic setups through to advanced decorative joinery
- Works alongside the INCRA HingeCrafter to produce solid wood hinges
- Front and rear blade guards; front guard also stabilises boards vertically and is adjustable for $\frac{1}{4}$ -1in timber thicknesses, box joints or even thicker for other applications
- The wide fence allows for the clamping of timber securely into position while cutting much better than hand-held boards, especially when joining small or large timber – hand-screw clamp not included
- Reversible and reusable MDF subfence dramatically reduces or eliminates tear-out
- Exclusive INCRA GlideLOCK mitre bar fits standard $\frac{3}{8}$ x $\frac{3}{8}$ in mitre slots with a 0.740-0.762in width adjustment range. Mitre bar

position is adjustable up to $7\frac{1}{2}$ in away from saw blades – edge of blade to centre of mitre slot – or up to $7\frac{1}{2}$ in from routers – centre of collet to centre of mitre slot

Typical prices: INCRA I-Box Jig – £185.95; 6in wooden hand-screw clamps – £24.95 each
Web: www.woodworkersworkshop.co.uk

Valchromat – a unique and impressive material, which is denser than MDF. The wood fibres are dyed before being glued together under pressure to form a board, which has a consistent density throughout. You can plane, thickness, or sand the surface, and it doesn't go all fibrous like MDF. The resin used to bond it isn't abrasive like that used in MDF. I've made large wooden gears, wheels, jigs, lettering, and toys using it. I intend to use it for some children's furniture as the colours are bright and the only finish it'll require is clear varnish. I bought mine from Atlantic Timber in Altrincham, Cheshire – see www.atlantictimber.co.uk

2,440 x 1,220 x 8mm – £69.54 – 12, 16, 19 and 30mm also available. It's supplied in Black, Dark Grey, Light Grey, Brown, Blue, Yellow, Green, Red, Orange, or Violet. Smaller panel sizes are

available and there are other UK-based suppliers, depending on where you're based

THE VERDICT

PROS

- Excellent instructions, DVD and support from manufacturer; simple to set up and use; safe to use – if guidance is followed and good workshop practice adhered to; good quality, well-made and robust; ability to fine-tune ensures accurate results are achieved – not a feature of many other jigs; wide range of finger joint sizes ($\frac{1}{8}$ - $\frac{3}{8}$ in); cuts on solid wood are very good

CONS

- Cost – it isn't cheap but if you regularly make box joints, the quality and results are worth the expense; you must have a $\frac{3}{8}$ in (19mm) mitre slot on your router table; no provision for dust extraction; cuts on plywood are poor unless you incorporate an outer sacrificial fence; speed of use – not a fast system but this improves with use and familiarity

RATING: 4.5 out of 5

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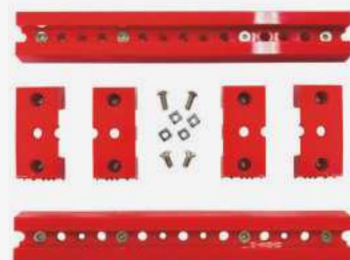
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TREND T32 M-CLASS VACUUM CLEANER

Equipment for cleaning up wood dust properly can be expensive, but the Trend T32 apparently combines the high filtration required with a low price. Too good to be true? Jonathan Salisbury takes a good look – inside and out!

In the good old days, wood dust wasn't dangerous like it is now. All you needed was a dustpan and brush and the household vac – and you didn't have to worry about clouds of dust coming from a leaky bag, either; not if you kept the windows open a while...

Even if that were true – which it isn't, by the way – removing wood dust is now a serious business, with dedicated workshop vacuums to suit every pocket, from discount supermarket bargains to those which double up as large volume extraction units.

Beware of those bargains, though! What are their filter ratings? Will you even be able to buy replacements in a year's time? It's difficult to spot the good from the bad without experience. Filters that fall off during cleaning, poorly fitting seals that allow dust to escape, bagless containers that redistribute dust as you empty them over the dustbin – even if it isn't windy – shut the lid, quick!



H&S training hat on

All dust is hazardous, but how much damage it does to you is down to the type – size and material – how much there is, and for how long and how often you're exposed to it. And possibly luck, too. It's impossible to know how much damage even infrequent exposure to small amounts of fine dust will cause over a long time, until it's too late. The solution? Don't create dust.

But if you can't avoid creating dust – and who can? – remove as much as possible at source (extract), filter the air (face mask) and vacuum up anything that settles. Dust on surfaces won't harm you, it's when moving it to the bin – whether brushed or vacuumed – that you risk adding fine particles to the air you breathe in. Vacuuming is in theory safer, but it depends on filtration.

Consider yourself a professional craftsperson from now on. A vacuum cleaner for controlling dust in a professional setting must have at least

an M (for medium) class rating. M-class means 99.9% of dust down to 0.3µm stays inside the cleaner; most of the smallest of these particles can't even be seen in normal lighting conditions. M-class also requires an indicator to alert the user when air flow is restricted. Forget bagless too; collection bags provide primary filtration to contain as much dust as possible so that the secondary HEPA (high-efficiency particulate air) filter only has to deal with the much smaller volume of the finest dust that still gets through.

But is the T32 any good?

The T32 is M-rated, compact, light, manoeuvrable and looks suitably professional. The vacuum unit in the lid clips onto the steel collection container securely and seals tightly. The big red power button is easy to push for on and off, the flow indicator above this shows when air isn't getting through or the bag is filling up; there's a push-pull



Large on-off button and push-pull filter cleaner



The 5m cable can be stored on top



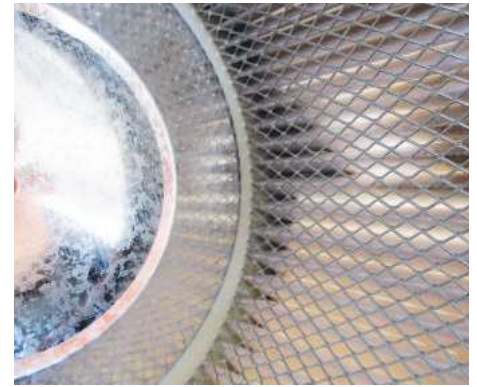
The 15 litre bag has plenty of collection potential



A few seconds of vacuuming and look at the state of the bag



Flip the flap to seal in the dust



The spotless inside of an efficient HEPA filter after use



You can use the vacuum bagless...



... but the HEPA filter will soon be blocked



A crevice tool is supplied for small spaces

button to clear the HEPA filter surface. The generous 3m tube and 5m cable provide plenty of reach and the tapered, flexible dust spout adaptor attaches to the hose so that it can be fitted to ports on power tools for 'dust control' purposes.

In order to test it, I vacuumed everywhere – the floor, walls, workbenches, lathe, shelves and cupboards. The only problem I encountered was the crevice tool getting blocked with large flakes from my axe-carved spoon blanks. The two floor cleaning tools worked very well on hard surfaces, the larger one being better for carpets, and the stainless steel tube set is long enough to reduce the need to bend down. The crevice tool for small gaps has a brush that flips out for cleaning flat surfaces, although this did have a tendency to flip back during use. A medium-sized surface cleaning tool would have been useful.

The bag is exceptionally good at filtering – witness the horrid grey-brown stain in the photo – and a flap seals it securely after removal

to prevent any dust escaping as it's transferred to the bin. The large HEPA filter seals tightly, with a wing nut to ensure it doesn't fall off, and, although it will eventually need replacing, it can be washed to keep it clean. If you leave the bag out, you lose the M-class filtration and the HEPA filter quickly clogs up. Bags may be wasteful, but they aren't that expensive. Using the bag to contain the waste also makes emptying a joy compared to an open container: gently separate the seal from the inlet, flip the flap to prevent anything escaping and take it to the bin.

To test dust control (extraction), I plugged it on to a planer using the adaptor, which stayed in place for the whole length of the wood (2.4m) and removed all shavings – nothing obvious was left behind. Trend point out that the T32 is a vacuum cleaner and not rated as an extractor, even though there's a photo of it being connected to a track saw on the box. You must wear an FFP3 mask too. Bags also fill up very quickly when you extract, so if you really insist on using it frequently



The flip out brush doesn't always stay in place

for this purpose, order a cyclone separator to remove as much waste as possible before it gets to the vacuum hose. Then put a proper extractor on your wish list.

The 800W motor is powerful but quiet: at 80dB, it's on the hearing-protection-required threshold for average daily noise exposure, so if you use it for long periods, in small spaces or



The crevice tool can get blocked with bigger chips



A flexible dust spout adaptor provides dust control on a planer...



... and also fits a router shroud

at the same time as a power tool, it's probably best to put those ear defenders on. The other bit of good news is the price: it can cost as little as £160 if you shop around for deals, and it also comes with a three-year guarantee.

Conclusion

There are more powerful, flow rate workshop vacuum cleaners at the same price point, half the



Now you see it...



... now you don't

price, or even less. But it's not about what gets picked up, it's about what doesn't get expelled into the air afterwards. You only have to compare the horrid state of the inside surface of the collection bag with the spotless interior surface of the HEPA filter to appreciate its performance.

The technical specifications of cheaper models tend to include vague descriptions such as 'high-performance', 'high-efficiency' or 'ideal for the workshop'. So is it worth spending the extra just for the reassurance of the extensive, accredited safety compliance CV of the T32? Yes, it most definitely is. ✖

SPECIFICATION

Voltage: 230V
Rated power: 800W
Capacity: 20 litre drum (bag 15.3 litres)
Max vac pressure: 14.6Kpa
Max suction: 146mbar
Hose: 3m x 39mm OD
Hose spout: 35mm OD
Noise level 230V: 78dB(A)
Flow rate 230V: 20l/s
Airflow: 4,200l/min
Cable length: 5m
Machine weight: 6.5kg
Dimensions: 350 x 390 x 610mm
Ideal for on-site use – certified for professional use: meets standard 2006/42/EC, dust class category M-rated to EN60335-2-69 and legal requirements set by HSE for workplace limit values of > 0.1mg/m³



The red bar indicates flow restriction; blocked hose or a full bag?

Typical prices: £190.80; dust collection bags – £35.95 for 10; replacement HEPA filters – £29.95
Web: www.trend-uk.com

THE VERDICT

PROS

- Lightweight and easy to manoeuvre; M-class filters 99.9% of dust; securely fitting seals and filters; good capacity for a reasonable price; three-year guarantee from a trusted brand

CONS

- Extraction limited to dust control; bag fills quickly when attached to high-waste power tools

RATING: 4.5 out of 5

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Hugs & kisses

Robin Gates confesses to flat-packed furniture then finds a forgiving message in the fretwork of a book table from *The Woodworker* of February 1927

Here's a shameful confession: the last time I built a floor-standing bookcase it was a flat-packed chipboard thing, assembled with tiny dowels and a sachet of PVA glue. Oh, and there were two. Back then, circa 1990, it seemed their worst feature was the green plastic coating, horribly reminiscent of mouldy bread, but now I appreciate there are more concerning issues surrounding furniture's equivalent of the Pot Noodle than met my eye 30 years ago.

In my defence, I'd moved somewhat hastily into a long-vacant and dilapidated house without mains services, and my books lay in cardboard boxes on the floor. Lured by the bright lights of the local DIY store, I found a stack of these bookcases marked down to £5 each. What would you have done? Returned to a dark house and spent the next day building solid-wood bookcases using ripped-up floorboards, hammer and nails? In retrospect that may have been the better option, the floorboards needed replacing in any case, but I gave in to temptation, and although I had no bed, chair or table, I at least ended the day with my books neatly organised on new shelves.

Fast & cheap

Countless others have done – and do – as I did, turning to affordable and convenient flat-packed furniture when 'fast and cheap' is what matters. IKEA's flat-packed 'Billy' bookcase – there's one made by robots every three seconds – has so flooded the market that financial markets company Bloomberg uses it as an index comparing prices around the globe. But the more valuable index would tell us what has happened to the estimated 50 million Billy bookcases made since 1979 when they are no longer wanted. My own evidence gathered at the kerb side on garbage day and from the local tip is that vast quantities of poorly-constructed flat-packed chipboard furniture ends up in landfill.

After their shelves had bowed under the weight of books, my bookcases were beefed up with steel angle plates and recycled as a baby changing table, facing each other and connected by a pine tray fastened across the top. Months later that piece was dismantled, re-joined front to back by metal plates with the warped back panel of one unit removed, to make a cavernous media stand for the kids' TV and video recorder. Later still, that was dismantled and the boards used yet again to bridge the joists of the attic where boxes of random stuff would gather dust. So we did make good use of those bookcases, but what happened to their remains after we moved house, I don't know; I suspect that if the new owners

LIGHT WOODWORK

OCCASIONAL BOOK TABLE

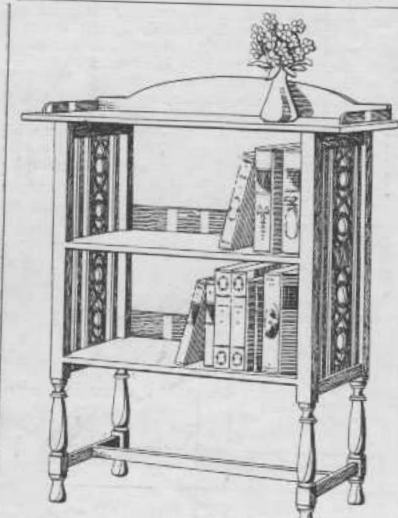


FIG. 1.—BOOK STAND. HEIGHT TO TABLE, 32½ INS. HEIGHT OVER ALL, 36 INS. WIDTH OVER LEGS, 24 INS. WIDTH OVER TOP, 28 INS.

THIS book stand is a graceful little piece of furniture, suitable for almost any room in the house, and intended to carry books in constant use. It could be made in any of the usual hardwoods, and, as it requires little material, it is a pleasing task for a few spare hours.

First, construct the two ends, each with two legs, 32½ ins. long by 1½ in. square (turned to pattern); top cross rail, 8½ ins. long by 1½ in. wide by ½ in. thick; and lower and bottom cross rails, 8½ ins. long by 1 in. wide by ½ in. thick. The cross rails are tenoned into the legs, and the spaces between the top and lower cross rails are filled with a centre rail, 19½ ins. long by ½ in. wide by ½ in. thick and two outer rails 19½ ins. long by ½ in. wide by ½ in. thick. The filling rails are tenoned into the top and lower cross rails, and the centre rail is fretted to the pattern shown at Fig. 6. The two lower shelves are 23½ ins. long by 9 ins. wide by ½ in. thick, tenoned into the legs, and fitted to butt against the filling rails in the ends, as shown at Fig. 5. The bottom rail, which joins the two bottom cross rails in the ends, is 23½ ins. long by 1 in. wide by ½ in. thick, tenoned into the end rail. When the work has been finally fixed up, thin backs from 2½ ins. to 3 ins. wide are screwed as shown at Fig. 4.

The top is 28 ins. long by 10½ ins. wide by ½ in. thick, screwed through the top members of the ends. The shaped back rail is 27 ins. long by 3½ ins. wide in the middle, shaped to 1½ in. at the ends, and is screwed through the top, while the end rails are 9½ ins. long by 1 in. wide by ½ in. thick, dovetailed to the back rail. (204)

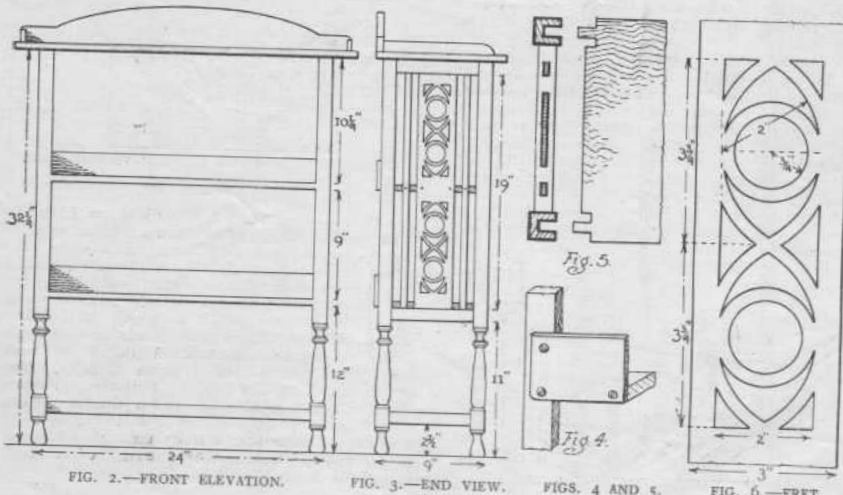


FIG. 2.—FRONT ELEVATION. FIG. 3.—END VIEW. FIGS. 4 AND 5. FIG. 6.—FRET.

floored the attic properly, the ghastly green chipboard would have ended its days like all the rest, buried without ceremony at the rubbish tip.

Hidden pattern

Now I have more time and a modicum of woodwork ability, I'm planning on making good for past misdeeds by building this delightful occasional book table found tucked between designs for a stationery rack and a hand-propelled snow plough in the February 1927 issue of *The Woodworker*. It will look just grand when stocked with the gold-lettered spines of some favourite

volumes, also providing generous space on top for perusing their old foxed pages, some with paper as thin as insect wings. The author says "any of the usual hardwoods" will do, and the construction using mortise & tenon joints looks manageable. Although the lower legs are turned they could equally remain square, be planed to a taper or made more shapely with the spokeshave. But it's the pattern in the fretted side panels which seals the deal – can you see it? That's woodwork anticipating the text message back in 1927, with zeroes and crosses sending hugs and kisses across the years! ✕

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SHOWCASING THE BEST OF BRITISH DESIGN & MAKING



Overall winner of
The Alan Peters Online
Furniture Award 2021:
Andrew Laphorn's 'Remnant'
table in bog oak, oak, maple,
sycamore, utile, holly, teak,
wenge, cherry, plane, fir, walnut,
ash, pine, mahogany, yew,
poplar, elm, beech, rosewood
and iroko – 1,375mm long ×
880mm wide × 340mm high

We finally unveil the winners of this annual award and their fantastic pieces, alongside an online ceremony and virtual exhibition, organised by **Jeremy Broun**

THE ALAN PETERS ONLINE FURNITURE AWARD 2021

The wait is finally over, and despite having to rethink the structure of this award due to the chaos caused by the pandemic, our decision to move to an online platform actually turned out to be incredibly positive, broadening its reach thanks to the powers of social media.

This inclusive award has also been selective, and the judges had a tough task on their hands when it came to selecting the final five.

With a focus on hand craftsmanship, machining could be included, and entries were in some way expected to echo the Alan Peters ethos. The judges were looking at craftsmanship,

aesthetics, use of materials and originality, so design was therefore a strong and integral element. Seeking a balance between variety of furniture pieces and techniques, the final five comprise both relative beginners and experienced makers, building on the value of the original award whereby beginners – winners – had the opportunity to exhibit work alongside that of seasoned professionals. With COVID-19 in mind, modest pieces of furniture were encouraged this time round.

An important theme running throughout this year's entries was a focus on narrative/storytelling, which the makers were able

to skilfully weave into the design and making of their pieces. According to the judges, this storytelling element seems to be a prevalent feature in the work of today's young furniture designer-makers, whereas in the past, the focus was on rapport with material or rapport with the client.

The 2021 award, despite the obstacles we had to overcome along the way, is a real success story, both for COVID-19 and also the furniture making industry as a whole. By continuing this award, we've been able to unearth new and existing talent across the country during a time of unprecedented crisis, and that, along with Alan Peters' legacy, is definite cause for celebration.

The virtual exhibition, plus the judging and prize-giving ceremony, will be available to watch from 16 April at 11am – visit www.jeremybroun.co.uk/alanpetersawardceremony.htm. ✂

1ST PRIZE WINNER!



Andrew putting the finishing touches to his winning 'Remnant' table



Assembling the staves



Gluing the top to the apron

Andrew Laphorn's 'Remnant' table –



£1,000

**Axminster
Tools voucher**

Meet the maker

In the years preceding attending Rycotewood College, Thame, in 1979, to study Furniture Fine Craftsmanship and Design, Andrew worked as a shipwright.

In 1981, he was awarded a Licenciateship of the Society of Designer Craftsman (SD-C), which he passed with distinction – Alan Peters was his assessor. In the same year, Andrew set up his own business as a furniture designer-maker and 40 years on, unsurprisingly, his order book is still full.

Historically, 60% of his work has been for the domestic market, while the other 40% has been split between the ecclesiastical and corporate commissions.

Elected a Member of the S-DC in 2011, Andrew is a part-time tutor at the Furniture Craft School on the Scotney Castle Estate.

The project currently on Andrew's workbench, commissioned by the Woodland Trust, is a large-scale outdoor memorial for those who lost their lives at the Battle of Jutland. You can see more examples of Andrew's work on his website: www.laphornfurniture.co.uk.

Maker's statement

Inspired by Donatello's sculpture, the table uses reclaimed/salvaged timbers from

around the world. 'Remnant', while showcasing the wide variety and inherent beauty of wood, its haunting demeanour alerts us to what we have to lose. Employing a fundamental skill required in working wood, planing true and square, without the need for a complex framework, 21 different timber types are free to move as one, the top and apron holding each other flat through the use of a long mitre joint.

Supported on a single leg made from 4,500-year-old bog oak, once consumed and now given up by the earth, it is testament to the strength and durability of wood. The timbers used are bog oak, oak, maple, sycamore, utile, holly, teak, wenge, cherry, plane, fir, walnut, ash, pine, mahogany, yew, poplar, elm, beech, rosewood and iroko.

Judges' comments

This is an arresting and original piece reflecting the stack lamination technique used by Alan Peters in his bowl tables, which allows the wood to shrink and expand as one. It is an intelligent use of offcuts and timely in minimising waste, which results in a visually striking design. The piece is almost sculptural in appearance, but demonstrates fine craftsmanship and imagination without being outlandish. Achieving such a long mitre joint without a visible glue line is no mean feat, and viewed from behind this table really does become something else.

The piece has the approval of Alan Peters' widow as recipient of first prize – a big congratulations to Andrew!

EXPERT JUDGING PANEL

JEREMY BROUN – Organiser

Designer-maker and co-exhibitor with Alan Peters from 1978–2002

HATTIE SPEED – Guest judge

Furniture designer-maker, educator and founder of the 'This Girl Makes' community

ANDREW LAWTON

Designer-maker who worked with Alan Peters as well as on his last commission

DAVID BARRON

Maker of fine contemporary furniture and long time admirer of Alan Peters' work

TRIALS, TRIBULATIONS & AN IMPORTANT MESSAGE

Event organisers must be like salesmen; thick skinned, persistent and patient, whereas furniture makers are often somewhat milder, introverted characters! Organising this award over nearly two years, changing it from a physical to an online event and creating an online judging ceremony and virtual exhibition from scratch, was akin to trying to send a rocket to Mars with just a JetX fuse – for those young enough to remember! It wouldn't have been possible, however, without the support and enthusiasm of this magazine and its prolonged PR campaign, both in print and on social media.

But I must admit to being baffled: despite the amount of advance warning given over the award and constant reminders for applicants not to leave it until the last minute, there were just a handful of entries up until the last day and then they came piling in – a record number of 27 individual entries – whereas the previous award – hosted at the Cheltenham exhibitions – only averaged around six each year.

Apart from thanking the many applicants, all of whom are helping Alan Peters' valuable legacy live on, especially during this time of COVID-19, I have one important message: when applying for an award, please ensure to give the application requirements the same detailed attention as you do when choosing what fine grit paper to use for finishing as well as the pitch of your dovetails! I am pleased, however, that the award was inclusive across the British Isles, reaching as far as The Shetland Isles. While lockdown prevented some from entering, especially colleges, almost everyone who applied is included in the virtual exhibition alongside the winners.

THE WILSON VIRTUAL EXHIBITION

One of the collaborations for the 2020/2021 award was for the winners to exhibit their pieces at The Wilson – Cheltenham's art gallery and museum in the heart of the Cotswolds, where a small collection of Alan Peters' furniture aptly resides. When the award was changed to an online event for 2021, The Wilson, while unable to host an online exhibition on their own website, has agreed to participate here. This is a space for the winners to visualise their furniture pieces sitting alongside those of Alan Peters, and for online visitors to enjoy.

Jeremy Broun – Organiser

Aidan Donovan's 'WAGA' table – £500 Triton Tools voucher

2nd
PRIZE

See more of Aidan's work at
www.aidandonovan.co.uk

Maker's statement

My coffee table, made in solid elm, explores the idea of contrast and harmony. An irregular hand-carved surface texture is juxtaposed with the precision of double sliding dovetails. The dovetail form is often seen as emblematic of precision, high craft, and refinement. This is contrasted with the hand-carved fluted surface, which is irregular, organic, and closely associated with vernacular and folk craft. The piece, inspired by Japanese and Mid-Century design, derives its name from the reference to Wagatani-style carved trays.

Judges' comments

This piece reflects the spirit of Alan Peters' work excellently in both technique and aesthetics, exploiting the unique properties of solid, home-grown timber. Traditional, yes, with its 1950s splayed legs – it's interesting the



'WAGA' table in English elm – 900mm long × 550mm wide × 350mm high

maker was inspired by Japanese design, as was Alan Peters. Aidan has injected some of his own individuality into the piece, which is appropriately well crafted and has an everyday appeal



Top detail showing irregular hand-carved surface

Nick Newlands' 'Art Chest' – £300 Judges' cash prize

3rd
PRIZE

Maker's statement

This three-drawer art chest was inspired by drawing office cabinets used to store large format velum sheets, although the form has been reduced in size to accept A3 sheets. The drawers increase in depth from top to bottom, the carcass sides gently curved to give weight to the base. Integrated drawer handles provide a natural flowing continuity to the front. These are formed from the solid drawer fronts using a combination of spindle moulding, table saw cuts and careful hand shaping with spokeshaves. A small lip on the underside is formed to allow the user to retract each drawer. The carcass is made by first constructing a thick-walled mitred base unit – using Dominos – which is then ski'd on a router jig to produce the curve and re-align the mitres. The drawers – a piston-fit to the carcass sides – are supported on cherry slide runners. Classic hand-cut dovetail joints are present, both front and back. The carcass and drawer fronts are made in cherry; the drawer side and bottoms in sycamore – waxed – and contrasted by slips in cherry. The piece is finished in Danish oil.

Judges' comments

This is a refined and understated piece of cabinetmaking with added interest provided by the sculpted drawer fronts. It is immaculately made and judges' opinions differ as to whether the carcass joints should be dovetailed instead of mitred – less is more, perhaps? There is plenty going on to fully digest, and much detail and subtlety. The carcass sides flare and the drawers are deeper towards the base, as is found on large carcasses. Overall, it is very much an Alan Peters piece



'Art Chest' in cherry and sycamore – 60cm wide × 28cm high × 37cm dia.



Drawer detail showing hand-cut dovetail



Thomas Eddolls' 'Dune' hall table

HIGHLY
COMMENDED

Maker's statement

This hall table, featuring an oiled finish, incorporates a carcass with through dovetails in oak and solid compound curved solid legs in cherry; these are shaped on a spindle moulder before being finished by hand. The hand-fitted dovetailed drawer features a sculpted front.

Judges' comments

This piece combines functionality, sculpture, cabinetry and echoes the Cotswold School (tradition) in its exposed carcass joints. While a modern take on an old theme, the curved legs give this piece a dynamic feel although they could be slightly less bowed. The mitred top corners of the dovetails look good and add a degree of quiet refinement. The undulating front – referencing the Cotswold Hills – makes this a tactile piece together with the visual delight of the distinct figuring in the wood. A particular subtle feature is the lack of a visible carcass base, similar to Alan Peters' table, which can be seen in the collection at The Wilson – gallery – in Cheltenham. A short video clip showing Alan Peters' wenge table can be viewed in The Wilson virtual exhibition – see website link on **page 28**

Thomas Eddolls' 'Dune' hall table – solid oak carcass with solid cherry legs – 900mm long x 450mm wide x 900mm high

Phillip Garner's 'Hajime' stool

Maker's statement

An exploration of planes of intersection between curved and straight lines, I took inspiration from traditional Japanese carpentry and conic-section geometry. When viewed directly from the front, there is a resemblance to a traditional 'torii' gate found at the entrance to Shinto shrines. It is made using hand tools – planing flat surfaces, spokeshaving curves, trimming mortises & tenons with chisels and block-planing bevels on the ends of the legs. Finishing was carried out by hand, sanding with fine 320 grit abrasive, followed by three coats of Danish oil, cutting back with 600 grit between each coat. My primary influences are Scandinavian Mid-Century Modern and traditional Japanese architecture/design. I'm particularly inspired by pieces that are simple yet clever; these show you don't need to force timber. I am keen to keep at least some work

affordable, as I firmly believe that good design should be accessible to all.

Judges' comments

An unpretentious, simple and understated piece, which fulfils its function with a touch of panache. The use of sycamore, a fine-grained wood and the chamfering of the top with its Japanese influence, adds interest and refinement, elevating the piece above the commonplace. It is well photographed and perhaps best appreciated from floor level. The maker is keen to make some of his furniture affordable, but the time involved in achieving just a mirror finish on the close-grained sycamore would rack up the price – could it therefore be batch produced? This is what made Alan Peters' smaller items affordable and the commercial design challenge is to cut down the number of hours involved in the making without compromising the piece's quality and essence

COMMENDED



Phillip Garner's 'Hajime' stool in English sycamore – 475mm long x 250mm wide x 390mm high

"With thanks to promoters, prize sponsors and judges for helping to ensure this important legacy continues"

Jeremy Broun – Organiser



The online award ceremony and virtual exhibition – including selected applicants – can be viewed at www.jeremybroun.co.uk/alanpetersawardceremony.htm from 16 April at 11am

THE ALAN PETERS FURNITURE AWARD 2022

We're pleased to announce that the award will continue to run next year. **The Alan Peters Furniture Award 2022** will be launched over the coming months, so watch this space...



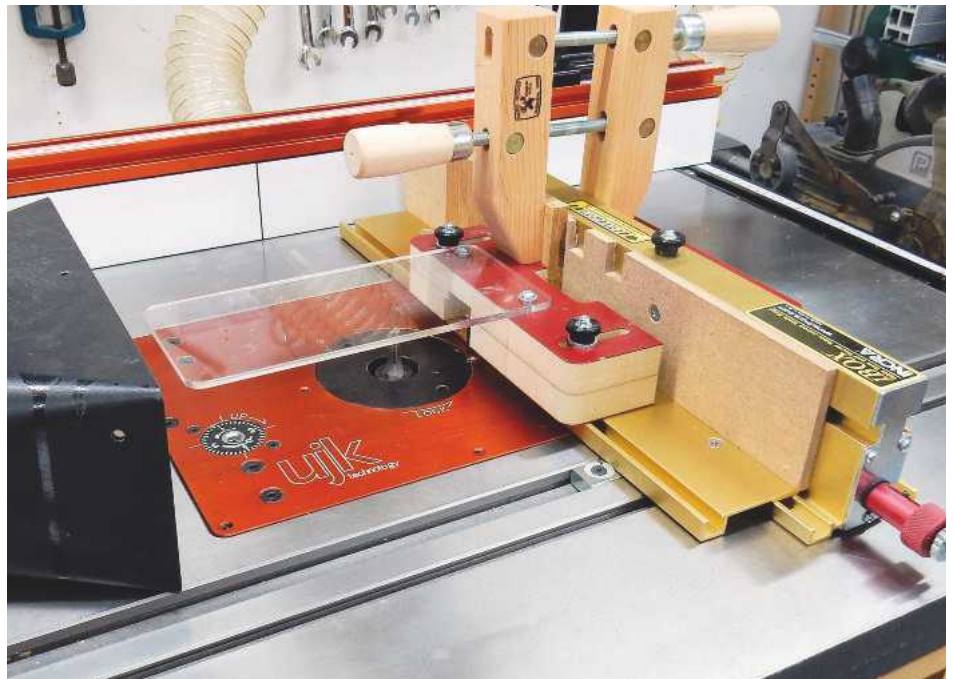
EVIE'S BOX

Geoff Ryan has become quite the boxmaker, so much so that his granddaughter recently commissioned him to make her a miniature chest of drawers – here's how he did it

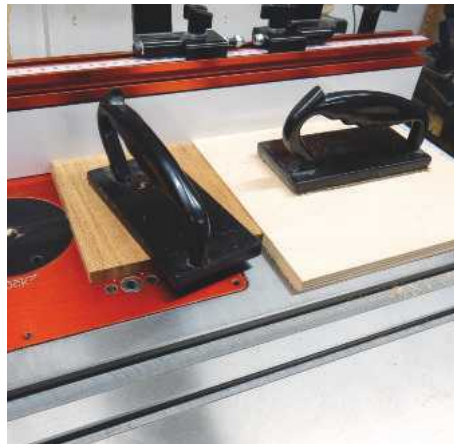
When my three-year-old granddaughter saw photos of the jewellery box I made for my sister-in-law (see *WW* April 2021 issue) she asked her mum if granddad would be able to make her one for Christmas. I thought a lidded box might not be tough enough to stand up to the wear and tear an energetic youngster might subject it to, so I decided a chunky box with drawers would be more appropriate. To connect the sides together, I chose box joints, which aren't as fancy as dovetails but certainly strong enough. ✕

1 I used several varieties of wood, which were mostly recycled. The mahogany for the drawer sides and bottoms was from some old outdoor benches and the body of the box from an old bookcase, of unknown wood variety, which had been darkly varnished. I personally don't understand the attraction of finishes that obliterate the colour and grain of timber – you might as well use MDF! The rear box panel was some thin beech I had left over from a trunk I'd processed some years ago. The drawer front was a piece of walnut board left over from the other jewellery box project I made in 2019. The only items specifically purchased for the project were the drawer knobs. I was intending to make some from a small piece of ebony I've had lying around for years, but I saw these in B&Q so the ebony gets to hang around gathering dust for a bit longer. The boards were all thicker than required, so needed a few passes through the thicknesser, taking care with feed direction to reduce tear-out and taking cuts from both sides to reduce the risk of the board distorting. After ripping slightly wider than required, one edge was run across a jointer before using the router table to plane the other edge and bring everything to the correct width

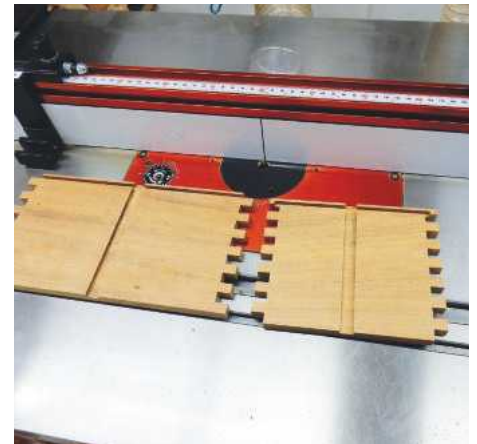




3 The box joints were cut on an IBOX Jig using a 10mm two-flute straight bit



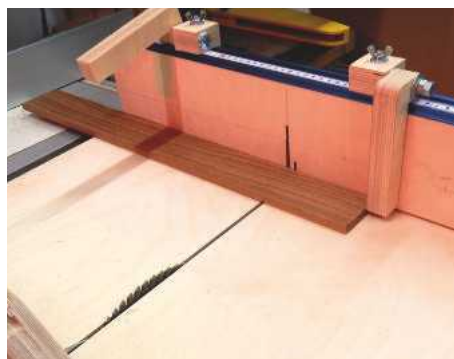
4 Dados – or housing joints – were cut using a router table on the inside of the top, bottom, and sides, to house the drawer divider. A square of plywood was used as a push block to reduce tear-out and keep the components – all 12mm thick – at right angles to the fence. A 10mm router bit was then used, the boards being run through twice after rotating them 180° to centralise the cut. Small adjustments were made to the fence position, widening the dado, until the divider panels were a nice, tight fit



5 3mm wide dados were also cut in all four sides to accommodate the rear panel. Stopped dados were required in the side pieces and this was done using the fence stops to limit the cut. The box was dry assembled so the length of the divider pieces could be measured and made to be an exact fit. Once inserted they could also be marked for width to allow for the back panel, which they just butt up to



2 Here you can see the router setup being used on some plywood for another project. The board is run between the fence and the router bit from left to right. The featherboards are essential to prevent kickback and my push-stick helps keep it moving with fingers well away from the cutter. My dust extraction method for this is crude but very effective with the hood resting on top of featherboards with some duct tape to stop it moving – it also acts as a cutter guard. The top, bottom, sides and box body were cut slightly longer than needed, on a table saw crosscut jig, to allow for the final trimming of the box joint overhang



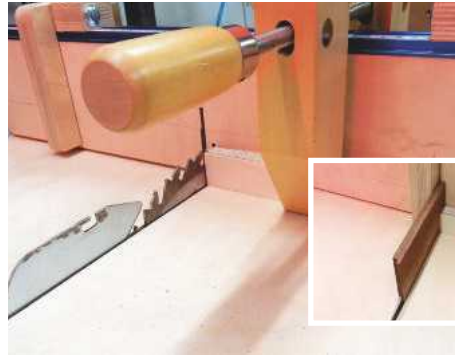
6 The walnut drawer fronts were cut to length on the table saw crosscut jig before being checked for fit



7 The drawer fronts were a fraction too long so were trimmed again using a piece of card against the fence stop, which acts as a spacer. The sides and back of the drawers were also cut slightly oversize and trimmed later for an exact fit



8 Here you can see the jointing layout for the drawers. The drawer front, on the left, has two 3.5mm dados cut into it. I used the table saw here fitted with a 3.5mm wide blade, which had flat topped teeth – I keep it specifically for cutting joints. This could be carried out on a router table but the table saw method is faster



9 To position the dado, so its inside edge is inset exactly the width of the side, I first clamped an offcut of plywood on the crosscut jig and trimmed the end. One of the sides was then used to set the position of the stop. After removing the plywood, a dado was cut on each end of the drawer front by butting the end up to the stop. Rabbets were cut in one end of each side



10 The box was dry-assembled and the drawer front, with the sides loosely attached, was slid backwards into the drawer opening and the length of the sides marked with a knife. After trimming to length, further dados and rabbets were cut for the side to back joints



11 Dados are also required to house the drawer bottoms, which are only 2.5mm thick. This was carried out on the router table as it affords greater control over the position with reference to the bottom edge. Stopped dados were cut in the drawer front, again by carefully setting the fence stops



12 There are 28 separate components to this box, not including a couple of 'spares' I also made in case of error



13 The lettering was cut in the top panel to a depth of 3mm using my small CNC machine. The letters are filled with a good quality epoxy resin mixed with a photoluminescent powder, which will make the letters glow in the dark. With open-grained wood, I usually seal the lettering with sanding sealer before filling with resin as, if I'm using coloured pigments, it can bleed through the grain. In this case, the wood is close-grained and the epoxy mix is almost clear. The letters are overfilled and a blowtorch quickly passed over the surface several times to dispel bubbles of air that invariably rise up in the epoxy. After leaving the epoxy to set for two days, most of the excess was removed using a coarse file and 120 grit abrasive. After drilling holes in the drawer fronts for the knobs, all internal surfaces of the box and drawers were given three coats of clear satin varnish. Care is needed to avoid getting finish on the surfaces to be glued. Once the varnish was dry, the box was glued and then clamped. Gluing the drawers required some care to ensure they were square – any misalignment of the front to the sides would be very apparent



14 The box was sanded to remove the box joint stubs and any remaining epoxy. The first pass was carried out on a sanding belt, which was easy as the box is narrower than the belt

15 Further sanding on all faces was achieved using a large piece of abrasive paper stretched across a flat surface, which can be seen opposite. It's actually a piece of large industrial 240 grit sanding belt, which a friend gave to me. Note the vacuum cleaner hose, which I use to keep removing the dust, and it also stops the abrasive from clogging up. The drawers were also carefully sanded so that each one would fit any of the drawer openings. Final sanding was carried out using a random orbit sander fitted with a 320 grit Abranet disc followed by a 400 grit Abranet pad. This particular abrasive works well on the random orbit sander, lasts a long time, and dust extraction is very effective due to the open weave. I also relieved all external sharp edges, for safety, then applied three coats of water-based clear satin varnish, using foam brushes as they give a nice finish



16 The drawer bottoms aren't glued and instead float in their grooves. The glued joints between the drawer front and sides are adequate for the size of drawer, but wouldn't be suitable for bigger projects. The drawers are a piston fit. All components were then given a final coat of furniture wax once the varnish had been allowed to dry for a week



17 My only regret in the construction was making through dados for the box dividers – these would have been better stopped where they meet the dado for the back panel. The inside of the back panel is also laser engraved with 'Made by Grandad for Evie, Christmas 2020' but this can only be seen when a drawer is removed



18 The final box dimensions when assembled are 250mm wide x 160mm high x 135mm deep. The special commission now sits on my granddaughter's bedside table and she's keeping her most important possessions inside. I was a bit worried that the blue glow of the lettering might spook her in the dark but I've had no adverse reports so far!

MATERIALS SOURCES

MasterCast Clear Art Resin – available from online suppliers. A 2kg kit costs £69.30 from Amazon but smaller sizes are available. The resin is odour-free, non-flammable and user-friendly with no solvent content. It's easy to use this two-part epoxy system as it's mixed in equal parts of resin and hardener. There are plenty of cheaper resins available but, unless you know what you're doing, I advise caution. I bought some polyester resin a few years ago and have never come across anything that stinks so badly – I had to flee my workshop and leave the door open for a day – needless to say I never used it again!

Polycraft Poly Glo Photo Luminescent Pigment Powder – available from online suppliers and a 100g tub costs £10. As with all chemicals, you should read the manufacturer's guidance on how to handle it safely. Once encased in cured resin, there's little risk except when sanding, so use dust extraction and a suitable mask. I've used it for clock numbers and lettering and it glows with a blue tinge. 30 minutes' exposure to daylight will ensure it glows for eight hours

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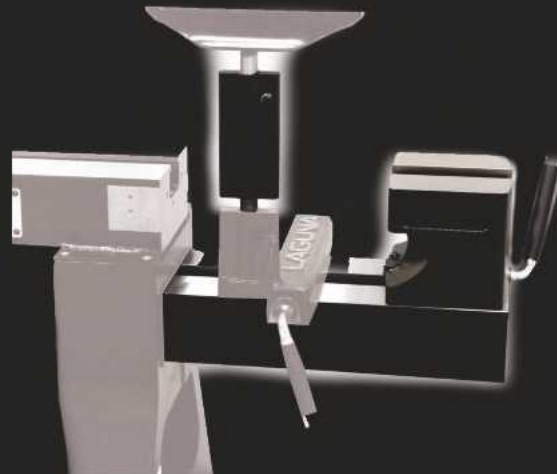
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A-Z

WOODWORKER'S ENCYCLOPAEDIA PART 26

As Peter Bishop ventures on in the directory, he expounds on the subject of nails to some length, and ends up about to break through to the Os where we start with funny smells!

Monoculture

This is the practice of growing a crop consisting of one species only. In timber terms that means, for example, here in the UK the Forestry Commission used to plant great swaths of conifer trees.

The problem with this method is that it doesn't have the biodiversity to support other natural plants and creatures. Most woodland and forest plantation now follow a more diverse route with mixed species.



A eucalyptus monoculture in Brazil



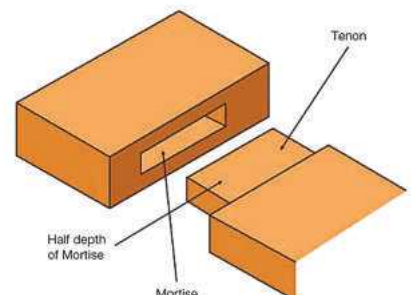
A mopstick handrail in pine

Mopstick

A simple, round handrail for stairs and other similar applications. It will have a flattened bottom to facilitate fixing.

Mortice or mortise

I usually spell mortice with a 'c' but it can quite easily be spelt with an 's' as well. This is the slot, cavity, hole part of the mortise & tenon joint.



Mortise & tenon joint explained



Set of four Narex mortise chisels from Workshop Heaven

Mortise chisel

These are heavy-duty chisels for cutting the mortise hole by hand using a mallet. Because there's a certain amount of leverage required, to cut the mortise holes, these chisels will have a deeper body to ensure they don't break or bend. If you're cutting mortise holes fairly regularly, you'd best have one of each size you might need. If not, two or three key sizes should suffice.



Axminster Superior mortise gauge

Mortise gauge

This is a double pointed, adjustable marking gauge for marking out the width of your mortise holes on a workpiece. Used like the single point marking gauge, you set it to scour the lines parallel to the edge.



Five lever mortise deadlock

Mortise lock

So called because the body of the lock is set into a hole similar to a mortise. These locks are usually fairly large and used on doors.



Clarke CBM1B mortising machine



Sedgwick 571 Mk2 floor-standing mortiser

Mortise machines

These come in all shapes and sizes. Your router can be set up to cut 'slot' mortises and there are other dowelling machines, which cut similar holes. When working on large sections there are mortise machines that can be taken to the wood rather than the wood taken to the machine. The static machines will be configured with one or more cutting heads and fitted with square chisels or chains. As usual, you pay your money and take your choice!



A selection of custom-made timber mouldings from Pembroke & Nash

Moulded, moulding & mouldings

Any time you've cut a shaped section onto a project piece, you'll have moulded it either by hand or machine. When moulding, we're in the process of cutting the shape, or we might be referring to one piece or a type thereof. Mouldings will be a group of pieces. In most DIY sheds and timber merchants, you should be able to find a range of standard profile mouldings. If you want something unique, you'll need to prepare that yourself. Large moulding can be made up using more than one piece: you simply build up the profile by laying one on top of another.



Logosol four-sided planer moulder



A five-head moulding machine in use

Moulding machines or a moulder

We'll usually find moulding machines in high production facilities. They'll have four or more cutting heads and an automatic feed system to pull or push the workpiece through the machine. They can produce simple, square planed material or highly complex mouldings.



An early 18th century moulding plane

Moulding planes

In the vast majority of cases these are vintage or antique wooden-bodied hand planes for cutting mouldings. Before the advent of production machines and routers, etc., our forefathers would've made their own moulding planes. Built with a wooden body, a steel planer blade would then be shaped to the desired moulding pattern. If you're keen on replicating the past, many of these planes are still around. The best place to find them is at auction. With a little time and effort, you'll be able to build up a whole range with different shapes. Clean them up, sharpen the blade, and they're good to go!



A monster of a cornice plane made by Philipson in around 1750. Although manufactured in England, it would almost certainly have been made for the US market as all the English cornices were made of plaster, not wood. The profile of the blade is around 100-125mm wide

Photograph courtesy of David Barron



A window mullion is a vertical beam that divides a window into smaller glass units. The purpose of a window on a mullion is to provide support to the glazing of a window, but they may also be required to provide structural support to a window arch

Mullions

A mullion is the vertical division in a window or door frame. They have infrequently been called 'munnions' as well.

Muntins

This is another name for 'glazing bars', which we covered earlier on.



Round head nail



Finish nail

Nails

Oh yes, the 'simple' nail – whoever might suggest that will be way off the mark! These chaps must have influenced the development of mankind, don't you think? Starting off with a simple wooden nail, used to joint up big pieces and the Roman's iron ones, we now have a huge range available. Might they be steel, copper or brass, maybe round, oval or square, or possibly galvanised, zinc-plated or painted, to which we can add and extend by finding cut, wrought or wire, then they could be rose-headed, flat or lost – on and on we go! I guess the point is that we can probably find a nail for just about any job that requires pieces of wood to be joined together, or something



Annular ring shank nail

"Nails have been an important part of furniture making since the Egyptians, at least. And not just for rough work" – **Christopher Schwarz**

else to be joined to wood. You can belt 'em, bash 'em, drive 'em, clout 'em and, of course, bend 'em! There's a bit of an art to knocking nails in; you can't always just hit away. To get the best impact and force behind your hammer, it should always be gripped at the end of the handle. Nice, clean clouts will do the job and then punch the top flush or away if you don't want to damage the surface. When I was a lad we called these dents 'half-crowns' and you got a cuff round the ear for every one you made! I have to admit, though, that I'd prefer a screw to a nail any day. That's because you have more control and less chance of a bend, a miss hit or dislodging that carefully set up frame. I'm a particular fan of the easy-drive variety.



Stanley FATMAX 5in nail set punch

Nail sets or punches

You use these chaps to help with the last part of the nail drive and to also punch the heads away into the surface. Loads are available, but if you've any broken, smaller diameter round files, you can make your own.

New build

We tend to refer to any new domestic buildings being built singularly or on mass as 'new build' as opposed to renovation, restoration or extension.

Newel, newel cap & newel post

The newel is the larger section piece we normally find at the start and finish of a staircase. If there are bends, sometimes called 'winds', there may be more than two. A cap is the shaped piece or pieces that fit onto the top of the newel to finish it off. A drop moulding goes on the lower end of a newel if it has been cut off and is exposed. A newel post can be simply applied to the newel, but in particular refers to a post that runs from the ground floor level right up through to the top.



A selection of bespoke wooden newel posts

No nails

This is an adhesive compound, usually delivered from a tube in a mastic gun, which can do away with the need for nails, and screws as well if you wish. Its popularity has grown over recent years due to its convenience of use. You simply squeeze it out, hold or clamp the pieces together, and away you go. Great for straightforward fixing or difficult-to-reach places. You'll need to understand how long your joining pieces must be held before the fix is made, however.

Noggin

These are the short pieces used between longer lengths of studding or joists, for example. They're there to help strengthen the whole framework and stop the longer pieces flexing.

Nominal size

In the trade, nominal sizes will refer to the primary sizes, say 2 x 4in, from which a smaller finished size can be produced. We also talk about nominal sizes when we've decided what the finished, cross-sectional size of a piece might be. In a project we might be looking for some 1 x 1½in finished size, so we'll need something like a 1½ x 1¾in nominal to produce this. We'd note that down on our cutting list then go off to buy it or sort it out from stock.

Non-porous wood

This is a classification applied to woods that don't contain pores or vessels and are mainly confined to coniferous trees, such as pine, spruce, larch, etc.

Nosing

The projecting, front edge of a stair tread, window board or any other exposed edge that might be rounded or moulded.

Notch

A groove, trench or recess cut into the face of a component to receive the side or end of another piece. It could be single, double or stopped.

Notched tenons

When there are two tenons meeting each other from opposite sides of a through mortise or in a corner, they may need to be notched to fit. This could simply be cutting them short or overlapping them. ✂

NEXT MONTH

Peter has got a really mixed bag for you in **part 27** – everything from stink wood to parquetry and many things in between



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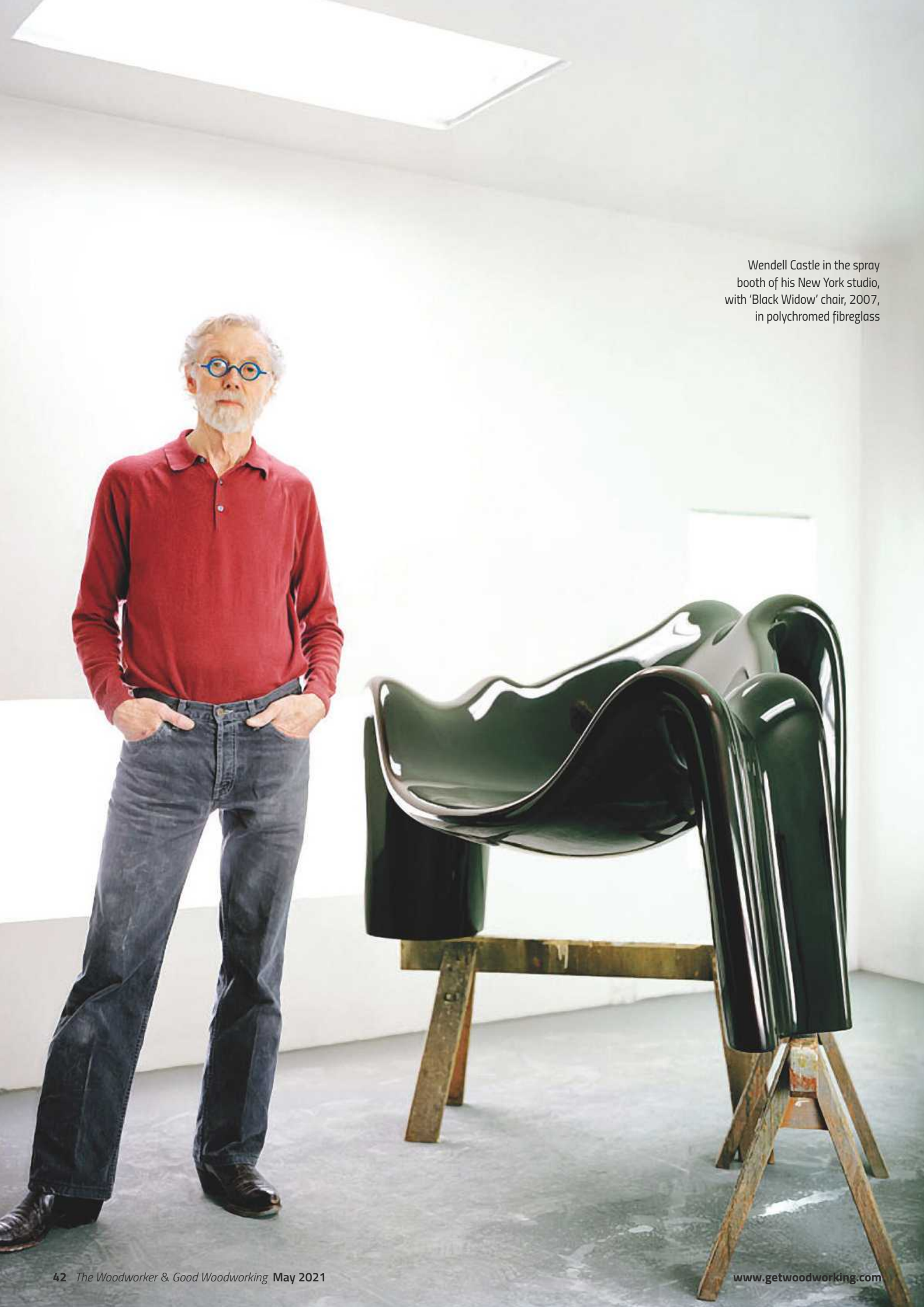
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Wendell Castle in the spray booth of his New York studio, with 'Black Widow' chair, 2007, in polychromed fibreglass



WENDELL CASTLE

Curiosity, playfulness & experimentation

Regarded as the 'Father of Art Furniture', **Wendell Castle** continued to push the boundaries of functional design over four decades, as **Simon Frost** discovers

‘The dog that stays on the porch will find no bones’. That’s Rule Five of Wendell Castle’s *10 Adopted Rules of Thumb*, published in 1996. Castle left the porch and found bones in the unlikeliest of places. Born in Kansas in 1932, Wendell Castle struggled in school due to dyslexia. His sole talents, he said, were for ‘drawing and daydreaming, neither of which were valued’. It was precisely these gifts, however, that led to him becoming known as the ‘Father of Art Furniture’. As such, there’s no doubt as to the value of Castle’s work – in terms of both its influence on modern design and the eye-watering price his works command on the market today.

Sculptural design

In part to please his parents, both educators, Castle decided to put his creative talents to use in a respectable way, and enrolled at the University of Kansas to study a Bachelor of Fine Arts in Industrial Design. A brief career upon graduating, however, did little to satisfy his curiosity to experiment with unusual ideas, and he returned swiftly to Kansas to take a Masters in Sculpture.

Castle wanted to be a sculptor, rather than a designer, but he was fascinated by design as well as art, especially in the products coming out of Europe at the time. So, he set about blurring the lines between design and fine art – or, more specifically, furniture and sculpture.

Self taught as a woodworker – his only tuition being a school class – Castle began to experiment with this medium. Where traditionally trained makers were joining timber with dovetails, tenons, mitres and the like, he largely steered clear of methods that resulted in flat surfaces and right angles from the very start. With little interest for the straight and square, Castle worked at replicating the natural, curvilinear forms that populated his sketchbooks.

This naturally gifted maker found it easy to pick up techniques, such as cutting fine traditional joints, and executed them to a high level. Castle created pieces in the late '70s that mimicked and played with the traditions of Art Deco and classical Romanesque furniture; some of his work even reminiscent of African tribal art, with rare pieces featuring exquisitely made dovetails. Here was a maker, it seemed, who could turn his hand to anything.



Unique 'Pedestal' chair, 1967, stack laminated walnut, 902mm long × 845mm wide × 787mm high



'Music Stand', 1964, oak and rosewood, 1,359 × 685mm



This faithfully stack laminated maquette of a Wendell Castle chair was made by Mike Ross while training at Robinson House Studio



'Molar Group' lounge chairs, 1969, gel-coated fibreglass, 952mm wide × 813mm dia. × 648mm high

Lamination

Castle's early works often employed bent laminations to achieve the flowing lines of his sculptural designs. The piece that first caught the eye of the art world was his 1964 music stand, which was selected for the American section of the Milan Triennial – a prestigious international



'Chair with Sport Coat', 1978, carved cherry, 814mm high

exhibition held every three years in the Italian city, long seen as a bastion of art and design.

Elegant and painterly, the music stand, in laminated oak and rosewood, is like a piece of modernist sculpture. Its slender, feminine form appears like a simplified human figure holding the music for the player, and a tree holds the music on one of its branches. Castle's approach to the music stand can be seen continually throughout his prolific output – take an everyday object, think about how it could be different, and turn it into a piece of art. 'Never state a problem in the term it was brought to you' is Rule Six, and encapsulates perfectly the way Castle would take the problem that a piece of furniture addresses, and solve it on his own terms.

It was his recollection of a stack-laminated decoy duck seen as a child in a magazine that inspired Castle to begin experimenting with this very technique. In doing so, he was able to manipulate timber and go on to create some of his most iconic pieces.

Castle built much of his most acclaimed wooden furniture in layers from the ground up, each roughly cut to shape, stacked and glued together. He would then cut away at the rough blank with a chainsaw, blending the



Stack laminated Trompe l'oeil table, 1978, walnut, 1,016mm high × 1,041mm wide × 584mm dia.

layers before refining the form further with rotary tools, gouges, and a lot of sanding.

Although these works are essentially made as a sculpture would be, employing subtractive methods of construction like a stone carver chipping away at a chunk of marble, what makes a Wendell Castle chair special is the fact you immediately know it's a chair, even though it looks like any you've seen before. It's like going for a walk and stopping to sit on a fallen tree

or rock – there's always a particular part that invites you to sit in it, a dimple or scoop that draws you in. This is precisely how Wendell Castle's chairs work: they don't look like chairs, but you want to sit on them nonetheless.

Trompe l'oeil

Like the great artists he looked up to, Castle's career moved through recognisable periods of work, including many iconic and innovative pieces in plastic, the material used to create the majority of his work in the 1970s. These included the instantly recognisable 'Molar' chairs – moulded plastic forms often produced in bright colours that resembled upturned chompers. Rule Nine: 'Don't get too serious'.

Each period of Castle's career broke sharply from what had come before, often with nods to artistic movements of the past. This was especially evident in his 'Trompe-l'oeil' series, which employs the centuries-old tradition of artists using their skill to deceive the viewer, subverting the format of the medium by making a portrait subject appear to climb out of the frame, or creating a seemingly transparent veil in marble over a bust.

Castle had the idea to create such a



'Ghost Clock', 1985, hand-carved from a single block of laminated mahogany



'Environment for Contemplation', 1970, containing a small, shag-carpeted crawl space

piece when teaching a still life drawing class. Having set up an unremarkable dining chair with a jacket hung on the back, he proceeded to draw it himself without distinguishing through shading or weight of line any material difference between the two objects. Looking at his drawing, he wondered if he could replicate this idea in solid form: a chair and jacket as one single object; a side table with a pair of gloves seemingly laid on the surface, but in actuality carved, very realistically, onto the surface. Castle was playing with ways of seeing things.

'If you hit the bulls-eye every time, the target is too near' – that's Rule 10. When Castle found the trick was too easy to achieve, he decided to end his Trompe-l'œil series, but not before one last piece – the most striking of them all: 'Ghost Clock'. He found himself drawn to grandfather clocks as items of furniture that aren't used as such, rather just looked at, like sculpture. Would a grandfather clock, therefore, still be a grandfather clock if the clock face weren't visible? Does it then just become a grandfather?

Castle went on to carve an exquisite piece from mahogany, depicting this very object.

Seemingly draped in a white sheet, it was in fact carved from a single piece, then bleached, with a string carved around the 'waist' of the clock to pinch the sheet material and accentuate its features, while suggesting a human presence

to the clock, as he'd done with the music stand. Unlike previous pieces in the series, however, this time the carved sheet was bleached to create the illusion of a distinction between it and the clock.

New ways of seeing

Over the course of his career, which spanned some 60 years – he sadly passed away on 20 January, 2018 – Castle created thousands of original pieces, most famously in wood and plastic, but also working in metals and even concrete. Unafraid of harnessing technology to help achieve his vision, towards the end of his life he even repurposed a former car assembly line robot. Its job was to carve stacked laminations into exact replicas of scale models, mistakes and all, which Castle had made by hand, replicating his own ideas faithfully at full scale.

Wendell Castle's was a career characterised by a seemingly bottomless well of curiosity, playfulness and experimentation, a desire to present new ways of seeing that led him to create truly unique work. But how did he do it? Perhaps he put it best in Rule Eight: 'If you do not expect the unexpected, you will not find it.' ✕



'Reaper' rocking chair, 2010, stack laminated and carved walnut, 790 × 1,850 × 1,050mm



'Scribe's Stool', 1962 – the piece that put Wendell Castle on the map



'Chest of Drawers', 1962, oak, walnut, birch and oak plywood, 1,330mm long × 519mm wide × 1,200mm high



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PART 1

Hat blanks, timber prep & wet turning



Widely renowned for his wonderful turned hats, in the first of a three-part series, **Andrew Hall** begins with timber prep for hat blanks before explaining the process for producing your own headwear ▶

In the woodturning sphere, I'm best known for my turned hats and I've been demonstrating these at clubs and shows throughout Europe for the past 17 years.

In this article, I'll take you through the steps for preparing full-size hat blanks, the process of timber conversion, before moving on to turning a full-size wearable hat.

I've had two faithful chainsaws for 20 years now – a Stihl 095 with a 600mm/24in bar, which I bought second-hand 25 years ago, and a Husqvarna 400mm/16in saw –

both of which are petrol-powered. Although I've had them regularly serviced and carried out interim services myself, they are now of the age where they'll need replacing as spares are no longer available. As a stand by and for use in the workshop, I have a Stihl 300mm/12in electric chainsaw, which is a brilliant machine.

My wife Janet is a retired nurse and the best piece of advice she gave me was to get the correct training and safety equipment before using the saws. I enrolled at Durham Agricultural College where I studied for part one and two of my Chainsaw Certificate, including felling

small trees and maintenance. At that time, I also completed the Lantra Awards Chainsaw Training Instructors course, although I never got round to teaching anyone as the insurance premiums were too expensive. I bought trousers, boots, wellingtons for woodland work plus a helmet, ear defenders and gloves for every day use. I then realised how physically demanding it was to use these saws as well as the difficulties in holding the timber steady while working alone. With this in mind, I asked my friend Billy, an engineer, to build me a chainsaw platform.



1 The structure of the chainsaw platform is made using 45mm angle iron, 900mm square. It has a table height of 900mm, on which I built a sturdy board with 'V' blocks to secure the timber. The chainsaw chair, as I call it, also uses a piece of 1,500mm angle iron and 3 x 600mm spikes secure the material from above while cutting



2 In preparation for turning a hat, I start with a piece of wood as a side-grain bowl blank, measuring a minimum of 400mm diameter x 200mm deep

3 I once tried to turn a hat from an end-grain blank, but that was a big mistake. It looked nice when it was turned, but as soon as I put it in the bending jig it delaminated around the annual rings. In the woods or at the timber merchants, I'd cut the log in half to make it easier to handle once I got it home. I cut the half log 150mm longer than the width, which allows for end-grain cracking. It's amazing how soon moisture will evaporate once the log is split in half. The weight of the blank is between 55-68kg, so back belt support is therefore essential. I also invested in a block and tackle for lone working; I'll then true up the surface so it sits flat on the chainsaw station



4 I mark the diameter with a compass or template and secure the blank with a central spike



5 I secure the blank with an additional two spikes; this ensures there's no movement when I come to cut the cheeks off the blank to create an octagon



6 I then trim up the remainder of the blank as close to a circle as possible



7 Next, I trim the corners at 45°, which takes more weight out of the blank. At this stage, the wet weight will be around 20-23kg

PROCESS FOR CONVERTING A SMALLER LOG

8, 9, 10, 11, 12 & 13 The following photos show the process I use for converting a smaller log using one securing spike for bowl and platter blanks. If using a fresh

cherry log, I would seal the end-grain with end-grain sealer and stick the log with 25 × 25mm sticks; these will allow it to air-dry at the rate of 25mm per year



PROCESS FOR CONVERTING A WALNUT LOG INTO BOWL BLANKS

14, 15 & 16 The following photos show the process for converting a walnut log into bowl blanks. The smallest size log I'd use on the chainsaw jig is 200 × 450mm long – for anything smaller, I'd use the Basato 5 bandsaw, for safety reasons





17 This photo shows the results of a few hours spent preparing. I'll end seal with Chestnut sealer or a cheap PVA glue, or part-turn some bowls and platters to a 10% wall thickness, seal completely and leave to dry for re-turning. I wrap the hat blanks in cling film or pallet wrap until I'm ready to use them. If the hat blanks are to be used longer than a month after preparation, I'll keep them in garden water butts and change the water monthly, adding disinfectant. For the full-size hat, I decided to turn this from Scots pine and prepared the blank at the timber merchants. As I'd purchased the whole tree, it was easier to chainsaw the blanks in the merchant's yard and transport them back in a trailer. These weighed from 18-20kg each and I managed to harvest 14 blanks from the log



18 Here, I'm turning the hat on my Vicmarc VL300 lathe. I've placed curtains around the lathe to help with the photos and also to catch the shavings. I'm using just four tools – 12mm bowl gouge, 10mm bowl gouge, 10mm parting tool and a Robert Sorby slicing tool – but a 6mm parting tool would also do the job. I start by truing up the blank, and have the belt on its lowest torque and speed setting; this allows the tool to cut easily and not stall the lathe



19 As you can see here, I'm wearing a pair of gloves. I normally wouldn't wear these while turning but the material was very coarse and had started to cause chafing on the sides of my hands. Like any other process, always assess the risk before you begin. I wear close fitting industrial leather gloves and make certain I don't try to slow the material down while stopping using the palms of my hands. Before I start, I carry out a full risk assessment and method statement. I know of some professionals who wear gloves at all times due to the challenges posed by eczema. My suggestion is to not wear the new work gloves available as they contain rubber gripping compound and could lead to a wrist injury if you touch the revolving material by mistake. With the leather, it simply brushes off if caught, at the same time as protecting the hands from sores



20 The next process is to gauge the size of the hat band – for example, the external band size of an average man's head is 203mm. I use bow callipers to determine the size



21 I then remove the remainder of the bulk with a 10mm bowl gouge. Using the Robert Sorby Slicer, a ring from the outer wood can be saved for a later project. Alternatively, a 6mm parting tool can be used for this process



22 Scots pine, although having very attractive grain when finished, is very furry and after using the Slicer as a parting tool, you're left with a surface on which you can practise your tool skills using a bowl gouge. At this stage, the band size can be checked using callipers



23 Using a 12mm bowl gouge with bevel contact, I clean up the crown of the hat and then, using the bowl gouge with the handle held low down in a shear cut, clean up the brim of the hat to an ogee or shallow 'S' shape



24 The next process is to sand the hat using wet abrasive in 80, 120 and 240 grit; this helps to maintain the moisture content. I then colour the band, using drawing pencils from the Derwent Sepia range. These are colourfast and don't bleed when applying a lacquer finish



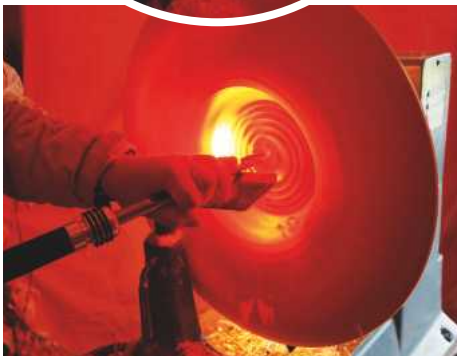
25 Using a 10mm parting tool, I crisp up the tenon using the 100mm Mega Jaws. Next, I reverse the hat until round making sure the brim is running absolutely true



26 I true up the surface of the brim and remove the centre cone using either the Sorby Slicer or a good, strong 6mm parting tool. The cone can be re-turned into a mini hat, which will form the project for a later article



27 I ensure to keep the hat as wet as possible during turning using an atomiser bottle filled with water. This helps to maintain stability and stop the timber from cracking



28 I work down the brim and hollow out the crown of the hat, as if it were a bowl, using the 12mm swept-back bowl gouge. A light is the best guide for thickness, but I also check it using callipers. In the photos, I'm using both a standard and large set of scissor callipers



29 I reverse the hat and clean up the surface of the crown. I'm using a light box with a jam chuck mounted on it, into which I've recessed a group of torches. Alternately, use a jam chuck and check the thickness with callipers



30 Again, I then sand through the grits as above using abrasive with water



31 Now the turning process for the hat is completed, it's ready to go in the bending jig



32 The hat can now be placed into my homemade jig

Hat bending jig

Base section: 200 × 120 × 40mm

Side laths: 600 × 25 × 15mm

Top laths: 200 × 25 × 15mm

Centre compression laths: 200 × 25 × 12mm
250mm threaded bar

10mm washers & wing nuts

Heavy-duty elastic bands purchased from either an office supplier or online via Amazon

Once placed in the jig, I gently dry the hat with heat from 2 × 60W spotlight bulbs; this aids in the bending process. At the sides of the laths are three screws, onto which I attach the elastic bands. They have infinite travel for stretching as the jig bends when they reach the bottom and can travel back up again. The threaded bar, which is tightened by the wing nuts, assists in taking the hat from round to oval

The next article

In part two of this hat-making series – September issue – I'll explain how to sand and finish the hats after drying. We'll also look at texturing and applying colour using a variety of techniques, including airbrushing and stencilling.

Hats aren't the easiest project to turn and should really be attempted as an advanced project. Sometimes they'll split, etc. as they are being worked with an unknown medium, drying with different compressions and tensions. Yes, they do crack but don't get despondent.

I'll also show you techniques for rescuing cracked hats to ensure they can live to be worn another day. Once dry, the hat will weigh as little as 150-225g. The loss in weight is roughly equivalent to around five bin liners' worth of shavings, but I recycle mine and use as bedding for my hens, which ensures that nothing goes to waste. ✂

A SHIP OFF THE OLD BLOCK



Home schooling recently gave **Beth Pim-Keirle** and her Dad, **Martin Pim-Keirle**, the opportunity for a bit of father-daughter woodworking with this simple toy boat. Beth explains how she made it using a scrap of softwood and a piece of dowel

Introduction from Beth

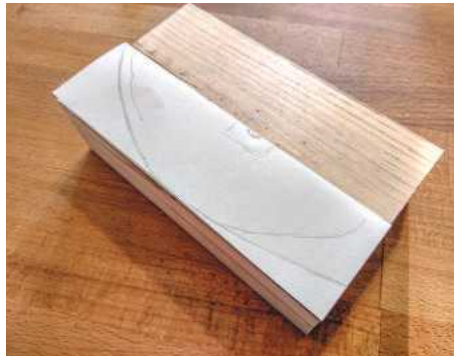
I'm nine-years-old and, like lots of children, me and my little sister have been away from school since before Christmas. I quite like being at home with my Mum and Dad, but I also really miss my friends. There's nothing particularly bad about Zooming your class, but I like it better in person. Our teacher (Miss Beck) is really good, and last week she told us we had to make a boat as a project. I was a little annoyed because the recycling had already been collected, so all the plastic bottles and pieces of cardboard were gone.

Luckily my Dad was listening and asked if I'd like to make a boat out of wood. I was super happy! I had already carved a heart out of wood, and helped make a shelf for my books, so I wanted to make a boat too. My Dad did the dangerous parts like using the bandsaw. He said Mum would be annoyed if I came back with only nine fingers. I'd like to do more woodwork in the future. The boat is only made from one piece of wood and a bit of dowel. I'm very pleased with the end result, and next time I have a bath, we're going to see if it floats! ✂ ▶





1 We started out by getting a block of wood that was big enough to use for my boat



2 We took a piece of paper the same size as the wood, folded it in half and drew half my boat outline onto it



3 I cut along the line and opened the page to make a template



4 I drew around the template and added an inside border, then drew a square in the middle for the mast. We shaded in the part I was going to carve out



5 I started carving out the shaded part to make the deck of the boat. This took a very long time



6 I carried on carving until dinner time, then we drilled a hole and glued in the piece of dowel for the mast, ready to start again the next day. Dad forgot to photograph this bit



7 The next day, after finishing carving, I sanded the deck of the boat and the walls to make them smooth



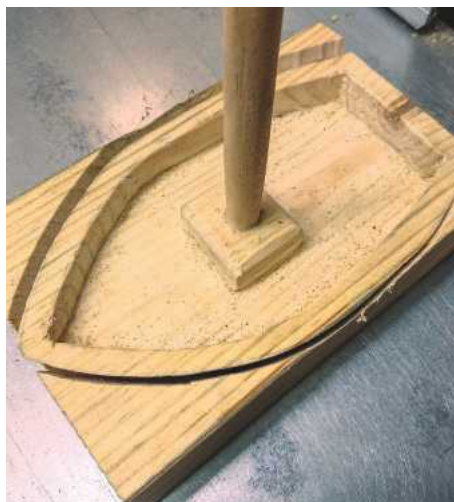
8 Finally the whole deck was fairly flat and smooth



9 My Dad cut around the outline using a bandsaw. He cut at an angle so that it looked more like a boat



10 This is me wearing a dust mask, safety glasses and ear-defenders. I wore these when my Dad was using power tools



11 Here is the boat with the bits that we cut off



12 I had to shape the hull of the boat using a Japanese saw rasp. This got rid of the marks made by the bandsaw, and made the sides look much nicer



13 I then sanded the hull to make it smooth. I used 80 grit sandpaper and a block of wood



14 To finish, I did more sanding inside and out with finer sandpaper, which took a long time



15 Here is the boat after I'd finished sanding



16 We decided to paint the inside of the boat, so I put masking tape around the outside and the mast so we wouldn't get paint on them



17 My Dad sprayed the boat with some black paint he had on his workbench



18 After painting, we decided to put finishing oil on to help make the boat waterproof



19 Unfortunately Daddy's gloves didn't fit very well!



20 When the oil had dried, we finished by rubbing in wax polish to protect the surface



21 This is me with my finished boat. We tested it, and it floats!

Robert Sorby

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In conjunction with **Wood Workers Workshop**, we're giving away five 75mm **INCRA Tiny T-Rules**, which allow you to mark out precisely with no risk of error

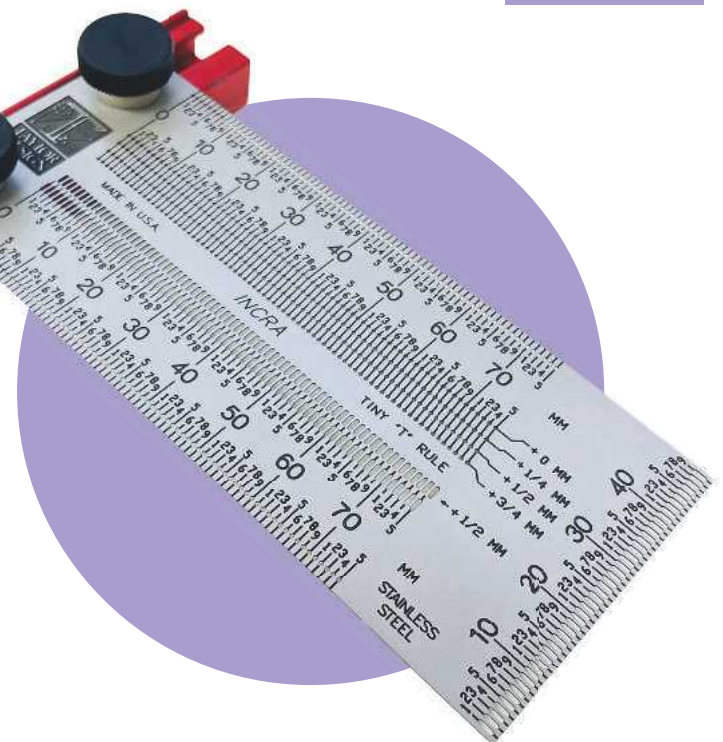
INCRA's Tiny T-Rule offers unparalleled accuracy, having patented marking holes to mark in rather than just etched graduations. These rules allow you to mark out precisely with no risk of error. It's very easy to draw exact lines in either direction.

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One of the fundamental errors woodworkers make when measuring out is to mark a line then mark the next measurement line from the first. Compound errors soon build up as a result, but these rules make mistakes such as these a thing of the past.

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- Also available in 150mm, 300mm, 3in, 6in and 12in lengths.

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To be in with a chance of winning 1 of 5 75mm **INCRA Tiny T-Rules**, just visit www.getwoodworking.com/competitions and answer this simple question:

QUESTION: Name one of the other sizes the **INCRA Tiny T-Rule** is available in

The winners will be randomly drawn from all correct entries. The closing date for the competition is **21 May 2021**. Only one entry per person; multiple entries will be discarded. Employees of MyTimeMedia Ltd and Wood Workers Workshop are not eligible to enter this competition



LETTERS

★ LETTER OF THE MONTH

HAND-POWERED HOME WORKSHOP

Dear Tegan,

Photo 3 on page 55 of the Dec/Jan issue (Jeremy Broun's article on making an exhibition quality piece of furniture) has compelled me to write. I've been fortunate in that I've always worked with wood for enjoyment of the activity and satisfaction with the results. The enclosed photo is of my home workshop showing bench – built in 1986 – and my treadle lathe – built in 1996. The apparatus next to the tailstock was intended to be a foot-powered bow saw, but it works much better as a drill press using my hand drill. At the age of 62, it's quite hard work to turn an 8in bowl, but it is good exercise.

You'll have noticed my references to hand- and foot-powered. After this crazy year, I've no desire to don a facemask in pursuit of my hobby. For me, woodwork will always be a quiet activity and I am quite content to leave the facemasks, visors, ear defenders, gloves, etc. to those who are in a hurry. Yours sincerely, **John Craddock**



John's workshop, where he likes to make things quietly. You can see his handmade workbench, treadle lathe and foot-powered bow saw

Hi John, thank you for writing in response to one of our recent issues – I'm so glad Jeremy's article inspired you. Thank you also for giving us a glimpse inside your workshop – it's great to hear that your hobby keeps you fit and I completely sympathise with not wanting to be kitted out in PPE! I hope you continue to enjoy making projects as well as the magazine content.
Best wishes, **Tegan**

MORE MEMORIES OF SHOREDITCH COLLEGE

Hi Tegan,

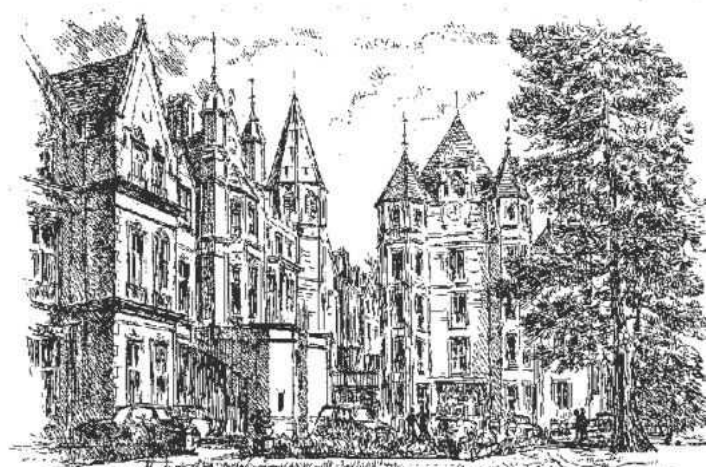
I was overcome by the feature on Shoreditch College (Nov 2020 issue). I was there from 1960–1963, the same as Jeremy Broun. We must have been in the same group too! How well I remember John Penfold: he was a really great guy and he and I discussed the design and build of a 'fireside chair', which my wife and I still have in our hallway. I made its identical companion some 30 years later. I was influenced a great deal by John and I have very fond memories of him. Again, dear 'Stroppy Jack' Maynard; Tom Reddy; 'Alfie' Canon, one of the finest silversmiths of his time; Mr Henry Malcolm, an engineering genius who terrified some of the 'less talented' students; and Mr Jeffries, who lectured us on the health education content of our course and who was also a member of the 1948 UK Olympics Gymnastics Team. He helped me when I initially injured my back while working at The Barley Mow Garage on the 'Green'. We had many sing songs there often led by a fantastic piano accordionist from East Anglia whose name I cannot recall, but he was a champion with many awards. Happy days! So many memories of great people.

The turfing of the chapel was one of those things I will always remember together with the disappearance of 'The Bread Van', which was Ted Marshall's personal 'pride and joy' transport. It was a really clapped out old Jowett van painted a sort of biscuit beige. Anyway, it disappeared and was reported missing to the Police, until, one morning assembly, as we started to sing 'Oh God, Our help in ages past...' the curtains slowly parted behind the seated staff members to reveal the old van on a raised dais in all its glory! There was uproar and needless to say, the Principal was not amused! He took it in good humour, though – in the end! I eventually sold it for him on the Isle of Wight.

WRITE & WIN!

We always love hearing about your projects, ideas, hints and tips, and/or like to receive feedback about the magazine's features, so do drop us a line – you never know, you might win our great 'Letter of the Month' prize, currently the new Trend ¼in 30-piece Router Cutter Set, worth over £100.

Simply email tegan.foley@mytimemedia.com for a chance to get your hands on this fantastic prize – good luck!



Shoreditch Training College, later to become Shoreditch College of Education, was unique as a teacher training institution due to its focus on handicraft

The College grounds were home to some magnificent specimen trees. Two of the tallest – poplars I think – actually became very high level clothes posts sporting a vast array of ladies undergarments, most probably pinched from the girls at Royal Holloway College, down the road. How those intrepid climbers got up there I do not know!

The mention of the 'College Tool Boxes' brought back memories, too. I still have both of mine and cherish them. I was nicknamed 'The Ice Cream Man' when seen carrying my metalwork box around my shoulders. I must look out some photos for you; I could go on and on...

Your continued efforts during these difficult times are really appreciated. Do keep up the excellent work and 'keep safe!' My kindest regards also to your excellent team.

Best wishes, **Jack Cluer**

Hi Jack, thanks so much for your kind words. Just reading your email brought a smile to my face and I could almost picture some of the comical scenes you so well depict! Oh my, those college days sound like they were filled with fun, tomfoolery, but even so, instilled a real love and appreciation of woodworking in those who attended. It's so lovely to hear that you still have some of the projects you made and I'm sure these will be handed down through your family and treasured for generations. I passed this on to Jeremy and I'm sure your stories will help to nudge his memory of the many jolly japes you all got up to over the years! We'd love to see photos if you have them and our readers would too no doubt.

Keep in touch and best wishes, **Tegan**

READERS' HINTS & TIPS



For the next 10 issues, in conjunction with Veritas and BriMarc Tools & Machinery, we're giving one lucky reader per month the chance to get their hands on a fantastic **Veritas apron plane with PM-V11 blade**. Ideal for trim carpentry and featuring a ductile cast-iron body, its unique side wings allow for a comfortable, firm grip. To be in with a chance of winning this great piece of kit, just send your top workshop hints, tips or pointers – indeed anything that other readers may find useful in their woodworking journeys – to tegan.foley@mytimemedia.com, along with a photo(s) illustrating your tip in action. To find out more about Veritas tools, see www.brimarc.com



A FAILED CRAFT FAYRE & DIY BOREDOM

I was preparing a batch of chopping boards for a craft fayre. The timber, sapele and beech, was very dry and kept soaking up the mineral oil I was applying. I'd read about vacuum bagging when veneering, but wondered if it could assist with impregnating. I purchased a set of six bags, in three sizes complete with hand pump, for £12 online. In **photo 1** you



1 Geoff placed six boards – sapele and beech – into a vacuum bag, then added a generous amount of mineral oil before pumping the air out

can see six boards in a bag into which I poured a generous amount of mineral oil before pumping the air out. **Photo 2** shows the air bubbling out of the end-grain once the vacuum had been formed. So much oil was absorbed that I had to add more and pump the air out again. After a couple of hours I removed the boards, wiped them down, and hung them to dry by their handles over a drip tray for a couple of days. The experiment appears to have been very successful and the deep penetration



2 The air bubbling out of the end-grain once the vacuum had been formed

of the oil should extend the life of the boards. Next time I will weigh the boards before and after to get a better idea of the effectiveness. I may also try out one of the vacuum bags for veneering a flat panel.

The craft fayre

After years of making items for the home or for family and friends, I had a sudden urge to try selling things I made, so I booked a table in a local craft fayre and set about making stock to sell. The engraved clocks I make are usually created with the recipient in mind, but in this case, I came up with a range of phrases such as 'Time for a senior moment', 'Tempus Fugit' and clocks with mechanisms that run anti-clockwise. I also made nesting boxes with 'Home tweet home' engraved on them, chopping boards, cheese boards, kitchen roll holders, egg cups, plant dibbers, door wedges, light pulls, wooden trays – in other words a good range of items to test the water with. When I arrived, the hall was a hive of activity, and I received a warm welcome from the organiser, Bluebell Fayres, who organise fayres at several locations on a regular basis. Opening time came and I stood waiting with anticipation for the flood of eager buyers and... nothing! Hardly anyone came in. The reason? This was May last year, just before we went into lockdown, and people

were already staying at home. To be fair I did sell one item – my brother and sister-in-law who live near the venue came in to see me and bought a door wedge. With luck I'll give this another try later in the year and let you know how it goes.



3 Geoff's stall at the craft fayre he attended last year, which was sadly unsuccessful...

DIY boredom

I'd been putting off redecorating our spare bedroom as it was in need of a fairly major makeover including some rewiring, plaster repairs, plumbing alterations, and a new laminate floor. The lockdown period is an ideal time to tackle jobs like this and keeping busy is good for passing time. Lifting floorboards to run cables was always a challenge to do tidily until the invention of the multi-tool, which allows very thin kerf cuts to be made along the tongue of the board and across it with minimum damage. The section cut-out fits back quite neatly and I was about to screw one back down when it occurred to me that once I laid the laminate floor, it would very likely be a long, long time before it ever saw the light of day again (i.e. probably not in my lifetime). So I took the piece of board down to the workshop and used my CNC to rout my name, year and 'COVID-19 Lockdown' on the surface. Perhaps at some point in the future someone will come across this and give us all a thought. A bit different to writing your name and age on the wall before you wallpaper.

Reader's safety note:

In the photo, you'll see I have installed screws in the middle as well as on the edges of the board. Only do this if you are absolutely sure there are no cables or pipes below, or disaster will occur!



4 Whoever finds this floorboard in future will be in for a pleasant surprise!

Geoff Ryan

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The magic of writing

Combining various projects in one and requiring the use of multiple turning techniques, **Philip Bradley** shares the design for his unique dip pen wand



For my first article in the magazine, I wanted to share a project which has continued to be incredibly popular among many groups of people. I thought the piece shown here may be something most haven't seen before and as I really enjoy showing the steps behind the making of my projects, I thought I'd take you through the process here.

This project is essentially two or three small projects in one: an ergonomic dip pen – a very practical item prized for its versatility by calligraphers and artists; a box to store a variety of nibs; and a lid for the dip pen, which when combined, also doubles up as a fun prop wand.

This project includes some tools and techniques which are less common, but a version should be viable for most turners without the need for kit such as texturing tools or wood stains. Throughout this article, I'll highlight areas where you can adapt the design if you so wish, but a word of warning before we start: a key factor to success in completing this project is following the order of steps. The end result relies on some relatively tight tolerances, achieved thanks to plenty of experimentation, and I've found this to be the best way with my turning. ✂





Roughing out the handle

1 For this project, I chose to use maple and walnut as they have similar properties, contrast nicely, and look great together. For most of my projects, I tend to start by roughing down the stock until round, and it's no different with the handle here. You need to make sure the piece is held safely in your chuck jaws for drilling. This step may require the cutting of tenons at each side, so you can be doubly sure the blank is held securely

TOOLS REQUIRED

- **Wand shaft & pommel:** these can be taken from the same blank, the dimensions of which are 370 x 22mm
- **Handle blank:** 140 x 30mm

For the pen

- 7mm brass tube
- Rose ferrule
- 7mm drill bit
- 15 & 19mm Forstner bits



4 Turn your blank to round before holding it in a set of pin jaws on the chuck. Make sure the blank is held true by locating the divot to the point of your revolving centre. Then, swap the centre for a Jacobs chuck with a 7mm drill bit and drill to a depth of approximately 25mm

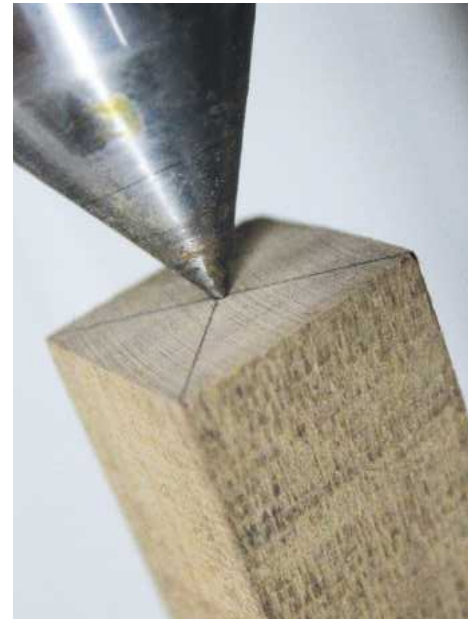


Drilling holes in the handle

2 Once chucked up, use a Jacobs chuck to hold a 15mm Forstner drill bit; this is for drilling the hole at the pommel/bottom end of the wand. Drill the hole 50mm deep before changing to a 19mm bit, then drilling 8.5mm deep, to create a lip. This drilling makes a hollow within the handle, which can be used as a box to store items such as nibs for the pen, small pieces of vellum or paper, which can be inked onto, as well as acting as a lip for the lid of the box or the pommel of the wand. Alternatively, if you're a wizarding fan, you may wish to use this compartment for holding items such as phoenix feathers! Once you've completed the stepped hole, flip the workpiece and drill a hole 55mm deep using a 7mm drill bit. For now this is all that's required for the handle. These holes will help when shaping the box lid/pommel and the pen/wand shaft



5 I recommend reinforcing the hole with a 7mm brass tube – these are readily available from most pen kit suppliers as a replacement tube for slimline kits. This step wouldn't strictly be required for a standard dip pen, but it does help with the longevity of any pen project and is particularly beneficial here. To strengthen the 7mm hole, rough up a 7mm pen tube using abrasive and glue in place using CA adhesive – I use Gorilla Glue. Once the glue has cured, cut away the excess tube using a saw. After reinforcing, swap the tailstock back to a revolving centre, set it to the now reinforced hole and apply very light pressure to aid in stability during turning. The wand shaft/pen will be thin and delicate, and adding extra pressure is likely to increase the chance of something going amiss – don't ask me how I know that!



Making the pen

3 Find the centre on the face of your blank by drawing two lines that connect each opposing corner. Where the points meet is as close to the centre as you'll need for this project. Centre finders can be very useful, but for speed and accuracy, I tend to use the straightedge method, but choose whichever method you're comfortable with. I like to mark the centres by making a divot; this is a good practice to get into if you don't already as it'll help when it comes to mounting between centres



6 The part of the pen that will be a friction hold in the handle works best at a size of around 20mm; this also provides a good finger rest while the pen is in use. Due to the tolerance required here, extra care should be taken. To achieve a high tolerance, turn a cone leading to the hole on the pen side and offer the wand handle to it. This intersection will leave witness marks, which can work as a guide and show you where to work to. Turn the piece until you roughly reach this mark before stopping the lathe and testing the fit. Repeat the process until you achieve the correct length of friction fit tenon. The tenon can be finished with melamine lacquer now but then left





7 Returning the revolving centre to its supporting position, use a long toolrest to shape the wand shaft. Rather than roughing out the full shape and refining, or using a story stick and parting down to a certain depth at a particular point, I like to work from the tailstock end to the live centre. For a long thin piece, this method reduces the chance of undermining the work and weakening the shaft. You want to keep as much wood supporting the area being worked as possible



8 The 'wibbly-wobbly' shape of this wand/pen was developed to be ergonomic and hug the hand during writing. I like to start with a slight fillet, progressing to a swell, then moving into a cove, which feels comfortable in the hand. Stop the lathe to 'test' the feel of this part a number of times, so you can be sure it's as good as can be. Once you're happy with the shape, create echoes of this swell and cove reducing in size towards the end



9 Finish the wand shaft using 1-3 coats of melamine lacquer, depending on the wood you're using, de-nibbing between coats. I use melamine lacquer for this part as it's likely to be handled a lot, and from experience, melamine can hold up to the wear and tear of pen use. In the past, I've held the pre-finished nib end of the wand in pin jaws to aid finishing, which results in a glass smooth, shiny surface when building up layers and burnishing. This surface has proven to be less popular in recent years, but use the method that best suits your end user



Making the handle & pommel

10 Shaping the handle and pommel together ensures a seamless fit. There was sufficient blank left from making the pen part of the wand, which meant it could act as the pommel blank. Cut a cone and offer up the pommel part of the handle so it leaves witness marks. Shape the wood so it is a friction fit, similar to how you turned the friction fit tenon for the pen



11 I like to decorate the inside of the pommel as it will be on show when the lid is removed from the box. To do this, use a parting tool to create rings. Finish this tenon with melamine lacquer as before, leave to cure, then friction fit the handle and move the tailstock so that it meets the wand pen shaft end of the handle



12 The handle has a less exaggerated profile to the swell and hollow shape turned with the wand shaft, but there is some added decoration towards the wand shaft end. Turn from high ground to low, starting at the peak of the swell and turning down. This rounding goes into the pommel blank at one end and ensures the seamless transition from handle to pommel into the hollow at the other end. I tend to leave about 40mm of room at the shaft end with a 4mm bead at each side for decoration. This adds a little grip for those who might use this piece for cosplay purposes. In the channel remaining, use the Crown Miniature Spiralling System, or similar



13 This is a non-standard tool for most turners, so I'll give a little more detail on its use. Slow the lathe down to 500rpm and set the angle of the tool initially to the +1 position, moving the cutting head along the channel. It's important to note that the cutting approach is different when compared to a standard tool, as there is no bevel, etc. Instead, set the toolrest so that it can lie at around 90° – flat – to centre. Next, duck below this point and introduce the tool from the bottom to establish a threaded cut, extending the cut gradually to create a spiral in one direction. Adjust the tool as required to the -1 position and repeat the process to create two overlapping spiral cuts and a knurled effect. At this point, I typically fine-tune some of the details with beading. This mostly completes the handle apart from the finishing, which includes some 'antiquing' to hide many potential sins – I won't tell if you don't!



Finishing/antiquing the handle

14 I like to highlight the details in the handles of these wand pens and use an antiquing technique I learnt while making props for TV. Stain the handle with a darker colour, knowing the stain will only penetrate to a shallow depth. Once cured, use abrasive to remove the stain in the areas that will be handled the most. In an everyday setting, this replicates the top layer being worn down, while grooves stay unaffected and potentially become darker due to environmental factors and a resulting patina building up



TIP FOR DEALING WITH VIBRATION



A tip for those with vibration issues: when I was learning to turn with thin parts like this, my dad showed me how to support the work with one or more fingers, which helps reduce vibration, if it has a chance of occurring. Be careful here and ensure that your fingers are well out of the way and not in a position whereby they could get caught, such as the toolrest. I turn close to 1mm for the tip and sand smooth; this is essentially the most delicate part of the whole project. It's worth bearing in mind who the end user will be: if it's a young child, then go for a less sharp point, but if you're making for a collector, then a sharper point is likely to be a stand out feature



Finishing the pommel

15 With a handle friction fit to the pommel or box lid, continue the curve of the handle, so there's a seamless transition. You can then turn the rest of the pommel to a shape similar to that of the Ace of Spades. For this one, I added a small ball at the end and finished it with melamine lacquer



Installing the hardware

16 Installing a rose ferrule is probably the easiest part of this project. You need to work on a relatively soft surface to avoid scratching the metal before pushing the ferrule into the reinforced part of the pen. From here you can insert a nib of your choice and store a few others inside the wand. You can then attach the parts to the handle and show off your latest creation

TIP FOR RECENTRING YOUR WORK

A helpful tip for recentring your work, if it has been knocked out of centre, for example, is to lower the lathe speed and slightly loosen the chuck before running the lathe and inserting a stout tool between workpiece and toolrest. As the work rotates, the tool will push it back into alignment. Once the piece is realigned, you can reposition your toolrest, tighten the chuck and increase lathe speed as required



17 The completed dip pen wand should look something like this

FINISHED DIMENSIONS & DESIGN ALTERNATIVES

Even though the dip pen wand here uses a rose ferrule, which could potentially be more difficult to find, there is an alternative method. To work around this, you could adapt the project to accept a ball-point pen, a crow quill – a type of nib that doesn't require a rose ferrule – or just omit the pen part and instead create an interesting gift. The finished dimensions of the project and its components are:

- Full length: **370mm**
- Dip pen wand (not including nib): **225 × 16.5mm**
- Box lid: **35 × 19mm**
- Handle: **140 × 29mm**





CARPENTRY CONNECTION

When he's not crushing the competition playing for **Swansea City AFC**, right-back **Connor Roberts** likes nothing better than to kick off his football boots and get into the workshop, immersing himself in his carpentry projects

Here at *The Woodworker*, we love hearing about young people who have a passion for the craft, especially, in this instance, when that certain someone's day job is playing as right-back for Swansea City AFC. At just 25-years-old, Neath-born Connor Roberts has definitely made his mark in the industry and his career highs to date include winning the Premier League 2 in 2018 alongside Joe Rodon, Daniel James and Oli McBurnie, as well as being regarded as the Championship's meanest defence, eclipsing the opposition while demonstrating some remarkable running stats while working his way around the pitch.

While Connor's football career is really only in its infancy, despite his undoubted passion for the game and the hard work he puts into training, he still finds time to pursue his other love – carpentry and woodwork.

While many footballers choose to play computer games such as FIFA when they're having a break, the Swansea City and Wales right-back can often be found in his garage workshop, pottering away and putting the finishing touches to his current project. Connor says that the first lockdown last year was the catalyst for him initially spending more time on his woodworking, and the fact the football season was put on hold meant he had plenty of free time. So, like many woodworkers up and down the country, Connor saw this as an opportunity to practise his skills, put some tips to good use and wile away the hours on his hobby.



Large toy chest



Recently installed TV/fireplace wall

The joy of creating

We were interested to find out about Connor's first foray into woodworking, which, like that of many young woodworkers and furniture makers today, was during design and technology lessons at school. While woodwork wasn't the only material he encountered, it was certainly the one that left its mark. Projects he made during this time included a fishing clock and little "nick nacky things," as he recalls. He went on to do a GCSE in the subject before leaving school to pursue a career in football. Although it would have been easy for him to find another, perhaps, more conventional pastime, Connor always felt an affinity for working with this natural material and decided to take it up as a side hobby. Connor admits that he's always had an interest in creating things, and now he has the time and resources to facilitate this, woodworking has therefore become a firm fixture in this young footballer's life.

Although he had to pretty much start from scratch when he decided to turn to this discipline as a means of filling his spare time, his interest hadn't waned, despite the fact it had been a fair

few years since he'd been in the workshop. He recalls a moment that transported him back to his school D&T class days, which was when he moved into his new house and had some professional carpenters round to carry out various jobs. Watching them go about their working day brought back memories of these practical lessons and it all started from there. The seed was re-planted and Connor couldn't wait to get stuck back in and start making.

Learn from the best

Connor tells us that he's fortunate to know various carpenters and joiners in the local area. This is a definite plus for him as it means he can ask for advice and also see the projects they're working on. Connor is also an avid follower of woodworking professionals on social media – particularly YouTube and Instagram – finding their content very inspirational. It seems that more and more woodworkers are sharing their projects, hints, tips and the processes behind the making of particular projects, which really gives a first-hand insight into what it's like to work in the industry. One of the names Connor mentions is Ryan from SkanWoods – **@skanwoods** – a professional joiner who does everything using hand tools. Some of the projects he makes are just amazing; just don't tell him how to use a router! Similarly, The Dusty Lumber Co. – **@dustylumberco** – focus their posts on custom woodwork and specialise in making projects using reclaimed materials, although this time relying more heavily on power tools.



Rustic dog bowl

FURTHER INFORMATION

Swansea City AFC – www.swanseacity.com
Connor's woodworking Instagram page:
[@crjwoodworking](https://www.instagram.com/crjwoodworking)

Connor in his
garage workshop



Baby gate with heart detail, finished in white

Fixing mistakes

Connor admits that one of the main reasons he loves woodworking is the fact you can take a pile of timber and transform it into a functional object, which serves a purpose and which, hopefully, looks aesthetically pleasing. He says this is akin to the sense of pride and achievement he experiences with football, and what he is recognised for in the industry, so in this sense the two go hand in hand very well.

Since setting up his garage workshop, Connor now has plenty of space to work on projects, taking his new-found knowledge and skills and putting them into practice. Heeding the advice of the pros and bearing in mind age-old tips, including 'measure twice, cut once', this self-



Mud kitchen for twins Harry and Jacob

confessed perfectionist is a big fan of taking his time and focusing on the details. Like any woodworker, he finds himself making the odd mistake when working on a project – which is reassuring to hear – telling us how he recently discovered that the spindles for one of his puppy gates had unexpectedly moved and twisted during glue-up. Rather than admit defeat and start again from scratch, however, Connor's process is to go back, redo it, make another cut and fix the mistake before moving on. "I enjoy making everything perfect," he says, "and this gives the piece a more professional quality."

Projects & tools

In terms of the types of projects usually found on his workbench, Connor tells us he's particularly interested in making items of furniture, such as a dining table for one of the club's physios, a bookcase using reclaimed scaffolding planks and a workbench; and on the smaller side of things, he also makes bird boxes, dog bowls, toy boxes and wine caddies. A tip he's recently tried out is covering the screws on his projects using a plug cutter, which appeals to Connor's perfectionist side. Doing this and taking the extra care and attention results in a nicer, cleaner and more polished end result.



Oak wine caddy

But this doesn't mean to say he's afraid to tackle the larger projects – in fact, he's just finished fitting a fireplace/TV wall, which involved some key carpentry techniques such as building a stud wall and cladding it in MDF, all the while aiming for the most expert finish possible.

Of course, all of these projects require the right kit and Connor admits to being a big fan of Makita power tools, many of which are displayed on his homemade tool wall. Recent purchases include a track saw – particularly handy for cutting down large sheets of timber – as well as a router, which allows him to add detail and enhance the look of his pieces.

Connor says that since time is of the essence due to his busy training schedule, he has mainly focused on building up his power tool collection, as these allow him to complete a project quickly while also being easier to use. In future, however, once he's hung up his football boots and has more free time, he says that he'd like to further explore hand tools, mentioning how he aspires to making a piece using this method alone. Doing so obviously requires a much greater degree of skill as it's all about finesse and taking your time to ensure everything goes together perfectly. There's some fantastic hand tool woodworkers on Instagram, so Connor will be spoilt for choice when he's ready to take things further.



Large planter made using reclaimed scaffolding boards



Large garage storage cupboard made from plywood



Industrial-style desk with black hairpin legs



Little bird house made using reclaimed pallet wood



Set of sharing boards made using some leftover oak worktop

Starting small

At the moment, however, Connor says he's happy to "stay in his lane," as he recognises that he still has a lot to learn and in order to make it to the next level, he's going to have to commit many more hours to the workshop. So for now, he's focusing on producing smaller pieces, and is excited to see that his skills are improving as he progresses. "Anything is possible as long as you take your time and pick up the necessary tips. Hopefully in future I'll be able to carry out much bigger projects and continue to build my skills from there," he comments. This pro footballer is rightfully mindful of taking on too many workshop commissions, however, choosing to focus on his main passion and career – football – and as much as we're certain his customers would understand his commitments, he says he doesn't want to let them down and over-promise.

Now the football season is in full swing and Connor is committed to training every day, this sadly means he's not able to dedicate the time he did last year to his hobby, although he still manages to steal the odd hour here and there where he can. In fact, when he finds himself with a few hours to kill, he'll pop into the workshop and get carried away, losing track of time and immersing himself back into it. Obviously the cold weather at the end of last year and start of this one didn't help, but hopefully Connor can take advantage of some warm spring and summer days, dusting off his tools and picking up where he left off.



The garage workshop, showing tool wall, workbench and some impressive kit

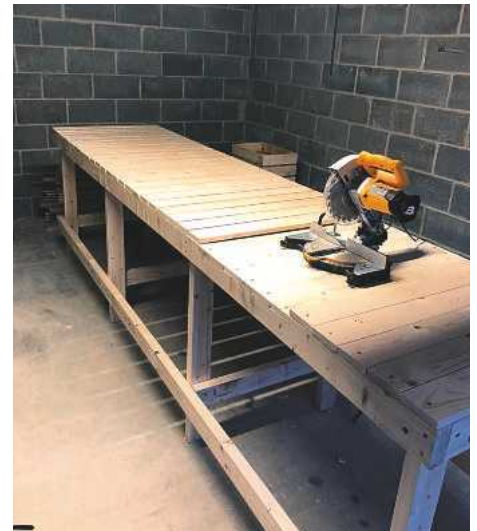
Learn from the pros

So what does the future hold for this immensely talented Welshman and where does he see things heading? Despite only being a few years into his football career, Connor – who helped Wales qualify for the European Championships last year – is eager to explore the option of pursuing his hobby full-time when he reaches retirement age in the sport. "I started my football career a little later than most," he explains, "but never say never. Once football is finished, carpentry and joinery is something I want to

pursue – either in terms of setting up my own business or working for someone else." And this is where knowing people in the local trade is a big bonus, and we're sure any carpenter or joiner would be more than willing to take Connor on board and train him up. After all, learning on the job is a proven path to success, and with such a positive mindset, a great eye for detail and willingness to learn, we're certain Connor would make the perfect apprentice. We wish him every success and look forward to seeing where this path takes him. ✂



Workbench build in progress...



... and the finished result



Connor is always on the lookout for spare timber offcuts and uses these to make his projects

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IronmongeryDirect unveils new brand identity

New 'Trusted to deliver' strapline reflects the company's ongoing dedication to delivering an exemplary customer experience

IronmongeryDirect has launched a new brand identity and a new customer focused strapline – 'Trusted to deliver' – to reflect the company's ongoing dedication to delivering an exemplary customer experience.

The bold new look has been designed to refresh and develop the branding that customers have known for a decade. The new strapline reflects more than 50 years' experience in supplying to the trades, as well as communicating a continued focus on the customer experience.

With a new logo and fresh colour palette, the website has also been updated to offer an improved user experience for visitors regardless of device used, so that customers will enjoy the same quick and smooth process whether in the office or out on site.

Dominick Sandford, Director and Head of Merchandising & Marketing at IronmongeryDirect, said: "We are delighted to launch our new branding to customers and suppliers. We have

always been a business that looks towards the future and this new, modern identity helps us to communicate that, as a clear articulation of the promises we make to our customers. It's the same company, people, range, competitive pricing and award-winning service that customers know and trust, but with a fresh new look."

IronmongeryDirect has the UK's largest

range of architectural ironmongery with over 18,000 products available for next day delivery.

To watch the 'Our Journey' video on the new look and find out more about the five customer promises linked to the new 'Trusted to deliver' strapline, visit the website: www.ironmongerydirect.co.uk/promise.



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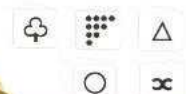
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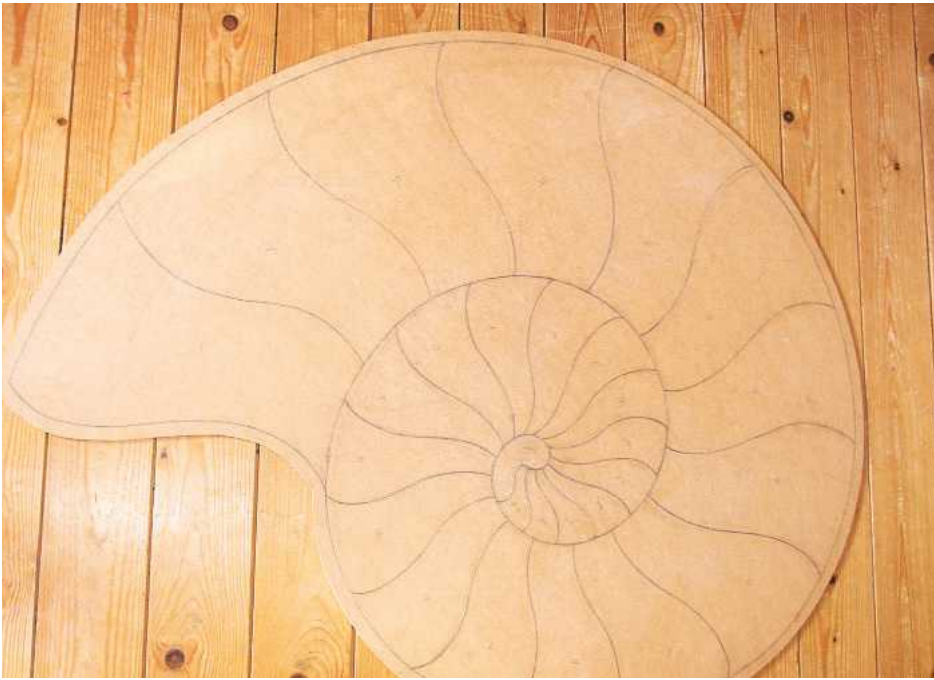
Fibonacci may be the aesthete's golden boy but **Mark Griffiths** believes the eye can do a better job

Inspiration can strike at the most unexpected of times. The idea for these shell tables came to me during a visit to the boat show at the NEC in Birmingham a number of years ago. I'd just been invited to show some examples of my work at the annual Celebration of Craftsmanship exhibition in Cheltenham and had been racking my brains to come up with a new design idea. Standing awestruck in front of a vast Sunseeker 'gin palace', my mind started to wonder about the challenges of fitting out such a beast. Having met a maker whose very job this was, I knew of the high level of skill, creativity and money that goes into making one of these boats. As I thought about furniture with a nautical theme, the design came into my head. I immediately sketched out a rough plan on the back of the show program, so as not to lose my train of thought, and went back to my office, continuing to build on the idea at the drawing board.

The final concept was quite simple. The piece was to be a coffee table with a top shaped like the Nautilus shell, and sides that plunged straight down from the top's edge, stopping only 20mm from the floor. The top itself would have the cross-section pattern of the shell's interior, with formed sections of veneer. I decided to make one table with a birch veneer top and Macassar ebony veneered sides, and a second with a combination of birch and birdseye maple, again with Macassar ebony sides. Birch veneer has an amazing watered silk quality when highly polished, which I felt would emulate a shell interior and I wanted to experiment with the birdseye maple to see how the combination would work on my pattern. Macassar ebony's rich, dark tones would help to create the effect of framing the table top.

In the end, the two tables looked as if they had been sliced from a stick of rock with the pattern running through them; I was born a





1 The design was drawn out onto a piece of 6mm MDF board. It helped to see things full size, and would save time and effort trying to transfer any drawing from paper to a rod

pebble's throw from Brighton beach so it's not hard to see where that one came from.

Perfect curves

After making numerous sketches based on a cross-section of the Nautilus sea shell, I developed a spiral with a constant expansion factor, known as an equiangular or logarithmic spiral, for which I used a Fibonacci rectangle. For those who didn't pay attention at school, this is the mathematical model using Fibonacci's number sequence to build a rectangle, with each new square having a side, which is as long as the sum of its latest two square's sides.

Although my design was mathematically accurate, it just didn't fit with my table's desired shape, so I threw the abacus out of the window and instead went with one that fitted the size of table I wanted, using a curving sequence that felt pleasing to the eye. When it comes to curves, I strongly believe you have to train your eye to 'see' a true curve (sketching helps in this process) and once the eye is trained, you must trust it.

Apart from some rough working sketches, the final design was drawn out straight onto a piece of 6mm MDF board. It helped to see things full size, and would save time and effort trying to transfer any drawing from paper to a rod. Having spent a good deal of time getting each internal curve's flow to match its neighbour, I was left with a design I felt happy with. This was then inked over with a fibre-tipped pen, which would aid the next operation. After laying on and securing a large piece of good quality tracing paper with masking tape, the finished pattern was copied with a fine 0.5 pen. Each section was given its own identification number, which corresponded with the sections on the rod.

The tracing paper was then spread out onto another oversize piece of 18mm MDF, and again fixed down with masking tape. Each section was cut out using a scalpel. When carrying out tasks

like this, I tend to work at it for about half an hour, then take a break and carry out some other task before coming back to it. Maybe it's just me, but on critical hand-to-eye work such as this, if you try to stay focused for too long, there's a danger you grow complacent and start to rush, which inevitably leads to mistakes and an unsatisfactory standard of work.

Creating the veneers

Now the project started to get challenging. Each of my jigsaw pieces to trace had to be turned into veneer. It's one thing working matching curves onto tracing paper; it's quite another working in unpredictably-grained veneers. I'm sure there are a few different methods around,

but this one has worked for me in the past, and certainly with this particular project.

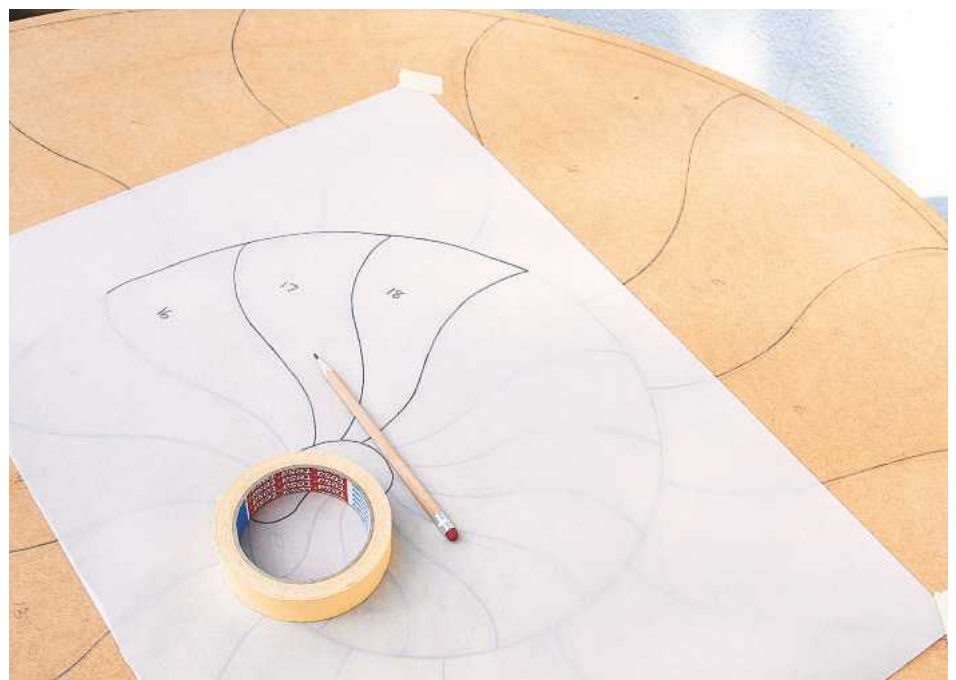
After selecting the veneers I wished to use, I evenly sprayed both sides with water from an atomiser spray gun, as seen in your local garden centre. The veneers were then placed between two 18mm boards – melamine-faced is best if you have some – and a weight placed on top. This gave the veneers a more rubbery nature that is easier to cut, and also flattened them out so they'd be easier to join. It's important not to totally soak the veneers and not to keep them in the boards for more than, say, a day, because a mould can form, which may leave a stain.

The largest outside section was cut out first. Checking the grain direction, the trace template was secured in place with veneer tape and placed on a cutting mat. It was then a simple case of following the template with a knife to cut out the veneer copy. For this kind of task, I keep several different knives to hand, from a straightforward Stanley to various shapes of scalpel. However, the knives I use the most for cutting veneers are ones that I've made myself from old hacksaw blades; they tend to not be as flexible as scalpel blades and you can put a bevel-cutting edge on just one face, resulting in a clean, flat edge on the other.

As each section of pattern was cut they were placed between two weighted 18mm MDF boards, which would aid in drying out and keeping them flat. With all the pieces cut out, the corresponding code number was transferred in pencil onto the top face, with an arrow pointing to the outside of the final pattern. I thought I could start the assembly process, but...

Hot sand

... as the pattern came together, I was disappointed to find that each section – despite being from different areas of the veneer leaf – didn't stand out from one another enough.



2 The finished pattern was copied onto tracing paper with a fine 0.5 pen. Each section was given its own identification number, corresponding with the sections on the rod

Even the top that had the alternate birdseye maple and birch only gave slight contrast between the sections. I was hoping the curving shape along with the veneer's natural watery pattern would give the top its character, but it wasn't happening.

Going back to the illustrations I'd been using to inform my design, I was struck by a beautiful 18th-century rendition of a Nautilus shell. The thing that gave it life was the shading of each curve, and I realised that this was what I needed in my design.

I'd used the old technique of shading veneers with hot sand before when restoring and creating reproductions with inlay work, but had never attempted anything on this scale. The process is relatively straightforward: first, fine silver sand is heated in a container, the piece of veneer dipped in with tweezers and left for a few seconds; when removed, the dipped edge is scorched and when placed alongside its unshaded neighbour, the effect of a 3D concave shape is created. This process is fine on, say, small straight-edge sections of a fan, but some of my sections were over 300mm long.

After much trial and error, and a big old wok full of sand, I started to get the results I was after, the contrast between each segment in the pattern becoming more defined. The trick was to have the sand deep and slowly move the edge through the sand to give an even shade, ending with the sharp point of the segments' shape, as this would burn and char if left submerged for too long.

Assembling the shell

Now shaded, each segment could be joined to its puzzle partner with veneer tape. Any joint that wasn't tight would be gently sanded on its edge with a piece of 240 grit abrasive until perfect. As the pattern built up, not only the sides but also the ends of each section, had to be fitted together with the help of 240 grit abrasive and sometimes a bit of extra trimming from a sharp



3 For cutting the veneers, I used several different knives. My favourite is one I make myself from old hacksaw blades (second from the right); these are less flexible than scalpel blades

scalpel. Each time I broke from the work, I'd place a board over the top to keep it flat.

With the pattern finished, I glued it to a board of 18mm MDF with a counter-balancing veneer the other side and left it overnight in the cold press. When dry, I belt-sanded the veneer tape of the board taking great care not to rub through something that had cost me a fair few man-hours to produce, although, if not well-sanded, veneer tape will leave you with a ghost mark on your work that may only show when applying a finish. The outside shape of the top was first bandsawn and then spokeshaved, again trusting the eye to see the curve, and fingers to find any unevenness.

The top was used as a template for the table's 18mm ply base. Having rough-cut this oversize

with a jigsaw, it was pinned to the underside of the top, after which I ran a router template cutter around it. The template cutter was then swapped for a 7mm deep rebate cutter set to give a 15mm high cut. This was run around the underside of the top and top side of the base, leaving the channel onto which my flexible plywood would be fixed. A central 'X' construction column, made of 18mm plywood and cut to the size of the inner table height, was biscuited into place. As well as aligning and joining top and base, this would also strengthen the table, allowing it to take the weight of any unappreciative individual who decided to sit on it.

20 strips of 20 x 30mm tulipwood were machined and cut to the internal length of my table and, using a very shallow old concave moulding plane, I ran two curves onto one of the 20mm edges, facing outwards; aligned with the top and bottom rebated edges these would provide both a strengthening rib to the sides and a fixing point.

Before gluing the central column into place, I'd marked corresponding location marks on the undersides of the top and base to show the positions of the tulipwood ribs. They were fixed into place with glue and screws located in the sides using the ever-versatile Kreg pocket-hole jig system. Time and time again, this seemingly simple tool has allowed me to make a good, strong fixing into an area where previously only a fiddly dowel joint and clamps would work.

Skin & bones

My table's naked framework was now ready for its skin – some 6mm flexible ply. With plenty of slow-setting PVA glue spread on the rebates and ribs, the ply was applied in one section. A dry pre-assembly run had given me the exact finished size required to create a clean butt joint in the only corner detail of my design. A helping hand for this type of operation is always much appreciated, but



4 It's a simple task of carefully cutting around the template until you have an exact replica, though the varied grain of the veneer is obviously a challenge



5 The veneers were shaded with hot sand to give definition between each. The sand was heated in a wok and the veneers dipped in with tweezers for a few seconds

it's also worth doing a dry run just so you know you can do the job alone if needed. As the ply was wrapped around, starting from the corner, 15mm headed pins were fired into the rebate and ribs using their location markings as reference. Once dry, the small holes left by the nails were filled and the side was sanded using a 120 grit abrasive pad in a random orbital sander, which left an even surface.

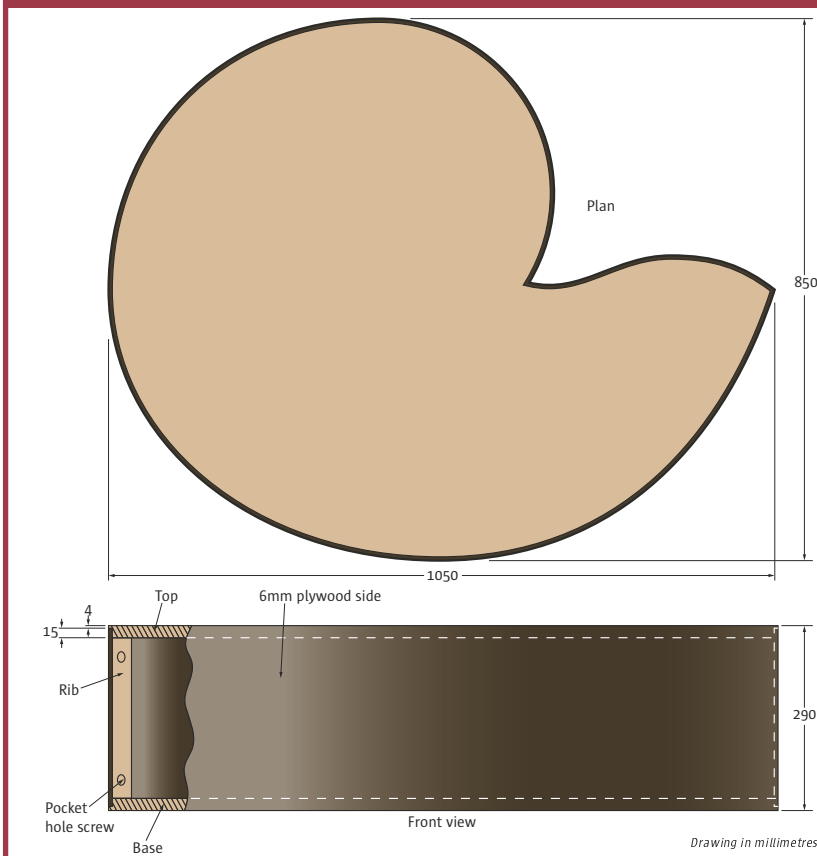
I had the choice of two different techniques

when it came to veneering the sides: Scotch glue or contact adhesive. Both have their pros and cons: Scotch is messy but you do have more time and flexibility when working with it, whereas contact is clean and quick but you only have one chance to get it right.

On this occasion, I went with the contact adhesive mainly because the veneer I was using, like all rosewoods, ebonies and teaks, has an oily nature, which requires a lot of

extra work to deal with if using Scotch. If used, I would've had to wash each veneer leaf with

VENEERING TIPS



- Before cutting the veneers, try evenly spraying both sides with water from an atomiser spray gun, as I did here. This makes them easier to cut and flattens them out, so they'll be easier to join.
- I convert old hacksaw blades into instruments for cutting veneers rather than using scalpel blades, which can be too flexible. You can also put a bevel-cutting edge on just one face of the blade, giving a clean, flat edge on the other.
- Controversially, I use contact adhesive to adhere the Macassar ebony-veneer sides to the table's frame. Regular readers will know that we usually advise against contact adhesive, as it's pretty unforgivable. My rationale is that the veneers used here were very oily in nature, which would take a lot of work to deal with if using the preferred Scotch glue method



a rag soaked in water and washing up liquid to help neutralise the oil, before applying it to the frame. I'd then have to attack any blisters that may come up overnight with an iron.

By comparison, using contact is relatively straightforward. Firstly, the surface of the sides was scored up using an old saw blade, then one coat of contact was applied just to the plywood, which is quite porous. Once this first coat was dry to the touch, another coat was applied over the top and also onto the veneer leaf – I like to leave them both until just slightly tacky – then the veneer laid in place. Working from one edge first, push out any air pockets as you go.

Any stray glue was removed with a cabinet scraper to avoid the temptation of trying to sand it off, which, due to the persistence of contact, can result in a veneer rub-through. Then, with great care, the whole job was sanded through 120, 240 and 360 grit random orbital discs; any rub-throughs at this stage would be very upsetting to say the least.

To finish, both tables were sprayed in high gloss two-part cellulose-based polish, which really set off the veneer patterns and colours. ✂



6 Now shaded, each segment could be joined to its puzzle partner with veneer tape. Any joint that wasn't tight would be gently sanded on its edge until perfect



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BACK TO THE GRINDSTONE

Tony 'Bodger' Scott takes a sideways look at sharpening ▶



1 Most grindstones – like this ageing Schepach – have a water-cooled stone at one end, and one or more leather wheels at the other



2 A straightedge reveals a hollow in the middle of the grindstone and a slope falling away on the left

Let me be blunt: sharpening is dull. I admire perfection in woodworking, as in much else, but I draw the line at obsessive compulsive behaviour, and I find that sharpening seems to bring out the worst of it. Three things in particular bother me about the debate:

- Within very broad limits, I've found that changing the angle of the bevel on a chisel or plane blade makes no perceptible difference to its performance. So the endless advice about the relative merits of an angle of 25, 30 or 35° – with or without a secondary bevel of 5° more – leaves me cold.
- Besides, those plastic angle-setters

supplied with grinding wheels are almost useless. Their edges aren't long enough to give you a reliable fence to measure against, and once they have a little workshop grime on them, the words and numbers on their surfaces become almost impossible to read.

- The law of diminishing returns applies just as much to sharpening as it does to investment and economics. Each extra minute you spend honing delivers less improvement than the minute before.

Five steps to sharpening

With a little care and some practice, I can get a perfectly acceptable edge on most tools within

a handful of minutes. I could no doubt get a finer edge if I spent a further half hour on each tool, but I'd rather use it to move my project forward. Tools are called tools because they're used for some purpose outside of themselves. They're for working with, not worshipping.

All that said, some degree of sharpness clearly matters, as does some degree of speed. I find a combination of techniques and machines serves my woodworking needs very well. As I go on to show, five steps seem worthwhile, and none of them takes very long.

- 1. Check the wheel** – holding a straightedge against the wheel – ideally with a strong light behind (**photos 1 & 2**) – makes an uneven surface very obvious. A set-square (**photo 3**) lets you check that you're not going to create a slope.
- 2. Dress the wheel** – you can buy special, and expensive, dressing tools, but I've found that any stout file – or one of those surfaces with microscopic diamonds embedded – makes a perfectly satisfactory substitute (**photos 4 & 5**).
- 3. Find an angle** – not the angle, just an angle. One way to check that you're grinding an angle more or less the same as the previous one is a trick I learned from woodturner Mick Hanbury: rub ink on to the bevel before you start (**photo 6**), then, as you grind, lift the tool off frequently and inspect it. The pattern of ink still visible will tell you whether you're grinding unevenly.



3 A set-square helps to ensure you don't inadvertently create a slope on the wheel



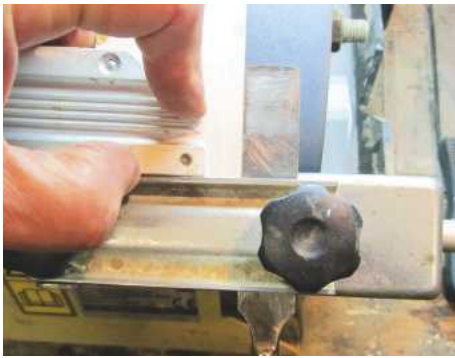
4 Any strong file or diamond-embedded abrasive plate can be used to flatten the wheel by hand



5 Cleaned, flattened, dressed and checked for square, the grindstone is ready to go back to work



6 Woodturner Mick Hanbury recommends rubbing ink over a bevel before grinding. When you later inspect the blade, the ink marks give you an instant guide as to whether you're grinding evenly



7 When clamping any tool for grinding, it's worth checking that it's held square to the wheel. This chisel has a marked camber along its edge



8 Two minutes of firm grinding remove the camber and raise a lumpy wire edge. The water in the stone stops the metal overheating



9 As you grind, move the blade back and forth across the wheel and out beyond both sides. This way, you minimise the risk of wearing the wheel unevenly and creating dips that will affect subsequent sharpening

4. Flatten the back – you can always use the side of the wheel to flatten the back (**photo 12**) or quickly remove the wire edge you raise by grinding the bevel. It's not as accurate as rubbing the back across a piece of abrasive tacked to a sheet of glass, but it is a great deal faster.

5. Finish to a polish – the sharpest blade consists of two polished edges meeting at an angle. The angle is less important than the polish. I usually start by polishing the bevel by hand on a leather wheel liberally smeared with jeweller's paste (**photo 14**), then clean it up on a felt wheel before finally giving it a few strokes on a leather strop (**photo 16**). Some woodworkers aim for a mirror finish front and back, whereas I tend to settle for a reasonable gleam.



10 Regular and frequent inspections, preferably under a bright light, help to highlight any remaining areas of irregularity

Listen to the wheel

You'll see from the photos that I make use of two grindstones: a broad, slow-moving water-cooled stone, which has a matching leather wheel on its other end, and a high-speed grinder, with a felt wheel on its other end.

Somewhere down the years, I've learned to use the slow stone so that it rotates away from the tool, even when I'm not using a jig

to hold the tool in place. I've tried using it with the stone rotating towards the tool and it works just as well. I've no idea which is, or is thought to be, the 'correct' way, but using my method allows me to easily move on to the leather wheel without risking the tool digging in.

On the other hand, I always have the high-speed wheel rotating towards the tool. ▶



11 This angle gauge – like most of its kind – is too small to be reliably accurate; I spent 20 minutes cleaning to make sure it was readable enough for a photo!



12 Purists say you shouldn't flatten the back of a blade on the side of a wheel; you should use a lapping stone or wet-and-dry paper stuck down on glass. I say it works well enough and is much faster



13 Jeweller's paste, used on leather wheels to polish an edge, often dries out in a workshop. It can be revived, however, by mixing in a little oil



14 You can of course use a tool-holding jig when you hone a blade on a leather wheel, but I find it simpler to hold the bevel on the wheel by hand. The pattern of slurry build-up around the edge will tell you whether the wheel is getting right to the tip of the blade. So will the feel of the tool in your hand, and the sound of the wheel against the metal



15 A felt wheel offers a quick method of polishing up the face or back of a blade, but remember to hold it tip-down against a wheel, which is spinning towards you, and remove it frequently so that the blade doesn't overheat and lose its 'temper' (hardness)

That way, I can keep the blade steady on the toolrest. I need only remember to point the blade downwards when I move to the felt wheel (**photo 15**).

For turning tools, I don't bother with the water-cooled stone at all. Because of the speed at which turning tools are moving against the wood on a lathe, they tend to lose their edge quite often. So, to save time, I go straight to the high-speed wheel. Laying the tool on the rest, I rest the bevel on the wheel and use my fingers as a fence against the outside of the rest to maintain the tool's position. Again, smearing ink on the bevel and checking frequently helps to make sure I'm grinding evenly. I aim to tilt the blade so that, as its bevel moves against the wheel, sparks just begin to come over the nearside face. I rarely bother to remove the



16 A few strokes against a stiffish piece of leather puts a final polish on the edge and removes any loose metal particles left over from the grinding

wire edge from the inside curve of spindle roughing and bowl gouges. Once they're back in use, the wire edge gets scraped off in the first few revolutions of the lathe. For those like me, who are willing to trade a little precision for a lot of time, let me offer one final idea: listen to the wheel. I've found it particularly helpful when sharpening freehand, without all those clever – and fiddly – tool-holding jigs.

On any grindstone, including a leather or felt wheel, you can't see exactly where the edge is in relation to the wheel, but you can hear it. The sound changes appreciably as the wheel approaches the very edge of the tool. On a felt wheel, for instance, you hear a smooth hiss as the wheel polishes the face of the bevel or back, but that changes to a lower drumming as the wheel reaches the edge. Give it a try. ✂



17 A smooth cut through paper is not a bad test of a blade. For my money, this edge is now ready to go back to work, not more than five minutes after starting



18 Turning tools aren't hard to sharpen freehand. Roll the bevel against the wheel until sparks just begin to fly over the nearside face. Lift the tool off frequently to let it cool and check the bevel is smooth. Finish off on a felt wheel, but don't bother removing any wire-edges; the lathe will do that in seconds



19 Plane blades demand a little more precision. Hence, here, a more determined attempt to repeat its 25° angle and set it firmly in a blade-holding jig



20 Once the plane was ready for polishing on the leather wheel, I was ready to finish it off by hand – you'll notice the jig is no longer riding on its bars



21 Clean, evenly translucent shavings are good evidence that the plane's blade is now square to the sole and scarily – if not terrifyingly – sharp

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SPHERICALLY-SPEAKING

Les Thorne relies on hand/eye coordination and a couple of jigs to turn these balls round

Making spheres or balls is something that woodturners have been doing for hundreds of years. Games such as bar skittles, bowls and croquet rely on the turner's ability to make a good round shape. In this article, I'm going to take you through a fairly simple method of making a good sphere.

Before we start to actually make the ball, we need to make a couple of jigs so that it can be remounted between centres. Some really good jigs can be bought but they do rely on a scraper-type cutter that won't always afford you a good finish on some of the more fibrous timbers, plus it's much more satisfying to do it with hand/eye coordination. Ball making can become addictive, and wet and dry wood can also be used.

Once you've turned your balls, you'll need to decide what you want to do with them. I have a student who puts a small watch-type clock in his and sands a small flat on the bottom; they make great gifts as desk clocks. I like to use them as sculptures, so I've decorated these in a few different ways; they can be attached together or just put in a bowl where they become tactile play things.

My ball-making method doesn't always result in a perfect sphere but the end result is pretty good, so enjoy the process and get making. ✂



1 I've selected some sycamore to make the remounting jigs for the balls; these are 50mm long and 50mm square – ideal for balls up to 100mm in diameter



2 Mount each piece between centres and make it round – the spindle roughing gouge makes short work of this task. Once parallel, cut a chucking spigot with a parting tool



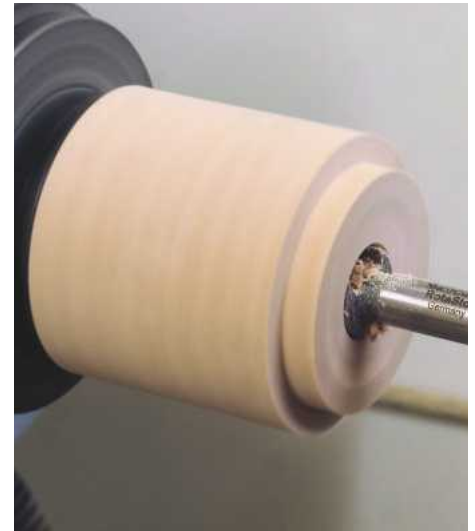
3 Next, the two pieces are roughed out; one has a spigot on both ends for the tailstock while the other, for the headstock, only has it on one. There's no need to sand or polish here



4 Mount the ball with only one spigot in your chuck and using the spindle gouge, turn the jig down to about 30mm in diameter on the end; this is a good starting size



5 The jig needs to be recessed in the end so it is able to accept the ball; a pull cut with a spindle gouge is the best way of doing this, and can be adjusted later if needed



6 My tailstock centre has a threaded nose so I drill a hole, which allows me to tap a thread in the end to suit the centre. If you have a normal centre, turn a hole to fit over the end



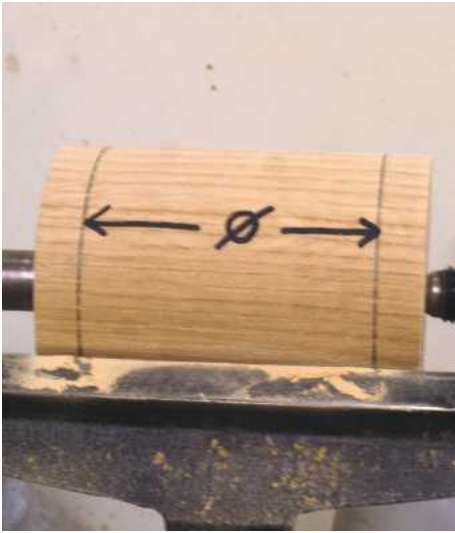
7 I use a $\frac{3}{8}$ x 16tpi tap to match the thread on the Axminster Evolution revolving centre; these taps are readily available online fairly cheaply



8 Big mistake: I should have used a much denser timber such as boxwood or even MDF; the thread has broken up quite badly but will still work OK for the first few attempts



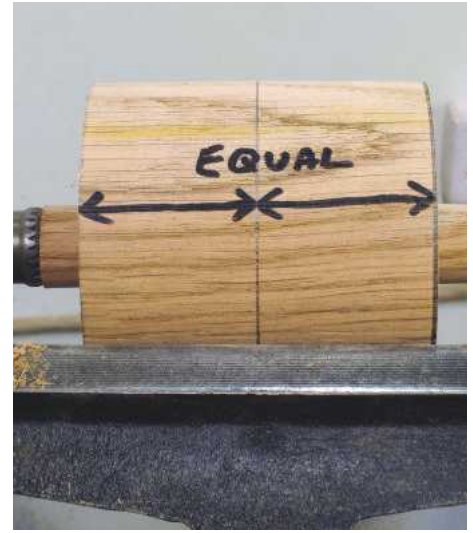
9 Mount the tailstock jig in the scroll chuck and turn the end down in the same way as for the other ball. If you leave the chucking spigot on, the size can be adjusted to match



10 Now start making the ball; mount a piece of stock, in this case oak, between centres, make it round and then mark the diameter onto the piece as in the photo



11 Use the 10mm round skew as a parting tool to remove the waste on either end down to about 20mm diameter. Ensure not to go thinner as this can weaken the wood



12 Once you have the length the same as the width, mark on the centreline as you can see here; the line in the centre becomes the most important datum point in the project



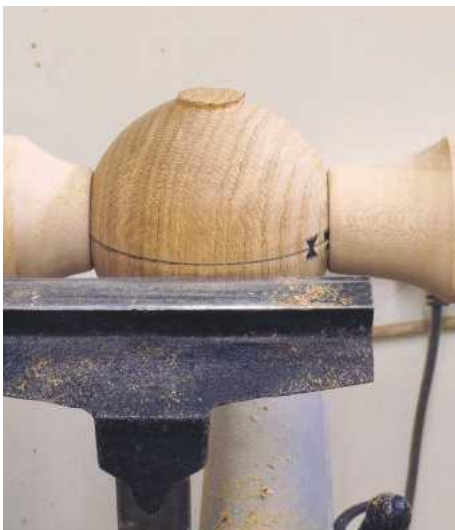
13 Using a spindle gouge, start with the bevel rubbing, lifting slightly to engage the cut and rolling over the end of the work. Ensure to keep the bevel in contact the whole time



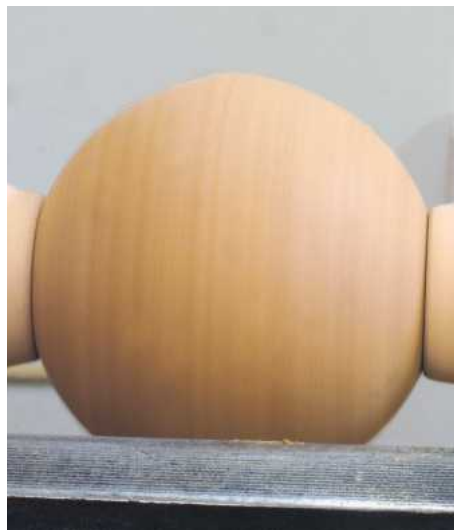
14 Do the same on the left-hand side, but be mindful not to remove too much timber at this stage. The line must stay on the work as this maintains the correct diameter



15 The shape at this stage is more of a rugby ball than a sphere. Keep removing the timber as you turn as well as the small waste sections off the end; this will leave a protrusion of about 5mm



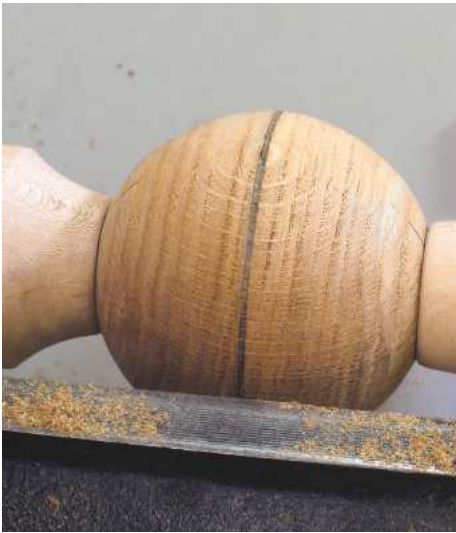
16 Mount the ball between centres on your newly-made cup chucks. Rotate it 90° so the line is now parallel with the lathe bed. You can then check with the toolrest



17 When you start up the lathe a 'ghost' of the shape will be seen if you look at the horizon of the piece; this is what needs to be turned away



18 Light, careful cuts are the order of the day here. Remember that there's a lot of fresh air, so you are cutting the high points down



19 Mark up the centre again, rotate through 90° and repeat the process; you must make sure that the piece is running as accurately as possible



20 It's now time to sand, starting with a fairly coarse grade of abrasive such as 100 grit. Keep repositioning the orientation of the ball throughout the process



21 After completing the oak ball, I turned one in sycamore using exactly the same process; this will give you a couple of options for decoration



22 I want to rework the sycamore ball, so I've made a jam chuck from MDF that can be mounted back on to lathe; the central hole allows the ball to be knocked out should it stick



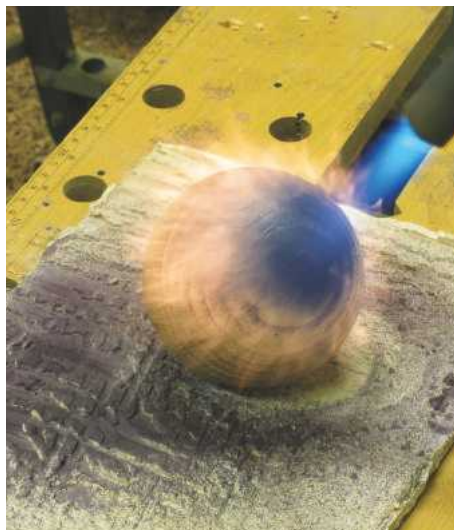
23 Using a 3mm parting tool, I'm just going to cut a series of grooves in the ball; go carefully as the ball can be knocked out; a little chalk around the chuck rim is helpful here



24 This is a similar decoration to ones that can be seen on ivory turnings from the past; you could now stain the work or leave it natural



25 I've chosen to spray the work black, then put it back on the lathe. Next, it's sanded so that black paint only remains in the grooves, before staining it purple



26 The oak ball is now placed on an old bathroom tile; the blow torch is used to burn the surface to remove the softer early growth; this leads to an interesting texture



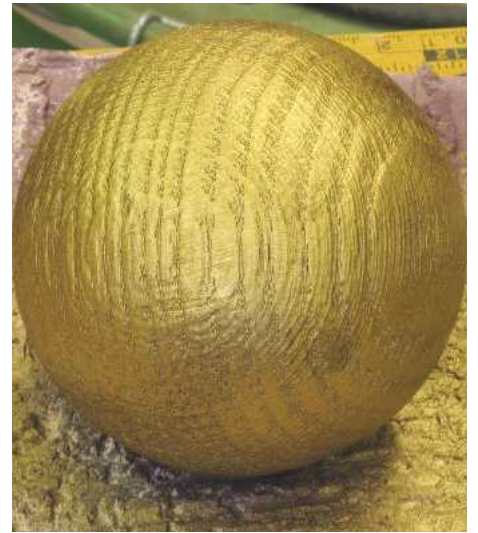
27 The work is then burnt all over. The surface wouldn't have cracked slightly had I kept the surface temperature of the wood down by spraying it with water during burning



28 I've mounted my sanding brush on the lathe using a Morse taper drill chuck; just tap it into the headstock taper to stop it coming out



29 Get a good hold of the work when brushing away the carbon deposits from the ball; you must clean off all the loose material before painting the work



30 As I'm going to apply an aged copper effect, I must first spray with copper paint in a technique shown to me by my good friend and woodturner, Nick Agar



31 Now verdigris wax, available from Liberon – www.liberon.co.uk – is applied all over the ball; you can use liming wax or even make your own colours by adding earth pigments to wax



32 Work it in to all the low points in the texture before removing the excess with a rag. Naturally, the green areas on copper appear in the parts that can't be polished



33 As the finishing touch, use Daler Rowney's Goldfinger to highlight some areas; this is a very bright gold paint, so only apply it in tiny amounts



34 I decided to make a couple of small unobtrusive display stands for the balls from PTFE; this is a nylon product used in engineering



35 As you can see here, do be careful when turning this material as the shavings tend to get wrapped up all over the place and could potentially cause injury



36 The completed balls should look something like these



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AROUND THE HOUSE WITH PHIL DAVY



Most of us would agree that buying cheap tools is usually false economy, unless needed for a one-off job where you can't justify the cost of pricier kit. You may remember the cheap chisels I bought on New Year's Day back in 2020. Tidying the garage recently I came across a shovel I'd bought a few years ago for the princely sum of £2.50! I'd bought one as a Christmas gift for a relative (I know, big spender!) and decided I needed one at that price, too. It's been fantastic value, reasonably comfortable, but above all, strong and reliable. With orange plastic handle it's easy to find stuffed in the corner of an untidy shed.

While I'm not suggesting we ditch our expensive, classic hand tools, perhaps we shouldn't always dismiss those budget buys, either. You get what you pay for, but sometimes it doesn't have to be a huge amount

WORKSHOP SQUASHED IN THE ACT

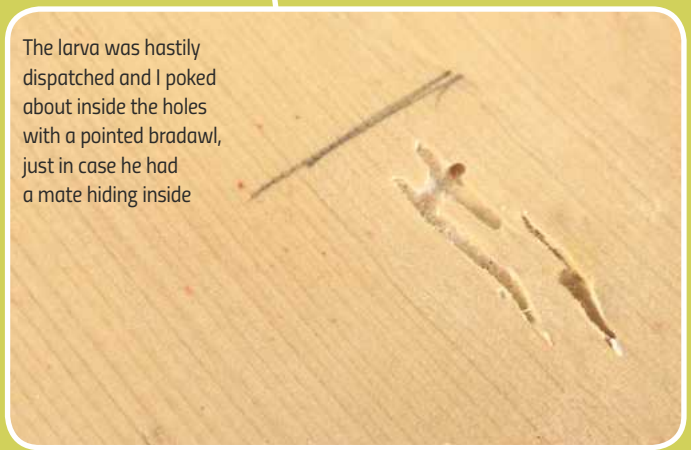
Sorting through some acoustic guitar tonewoods recently, I was shocked to find that one of the book-matched soundboards revealed evidence of woodworm. Just a couple of small holes, but these were close to the centre of each board. What was fascinating is that I actually saw the blighter making his way out of the timber – caught in the act! The larva was hastily dispatched and I poked about inside the holes with a pointed bradawl, just in case he had a mate hiding inside. Problem was, the timber was probably the best quality I'd ever bought for a musical instrument. This alpine spruce has wonderful bearclaw figuring, which you normally pay a premium for. Fortunately, I'd pencilled the price I'd paid in one corner and it had cost me the princely sum of £15, though that was a very long time ago. Nowadays you can easily pay upwards of £90 for similar grade instrument timber.

Woodworm fluid

Unfortunately, you can't really treat tonewoods with woodworm fluid and then fill the holes as this is likely to adversely affect the finished guitar's sound. Cutting away the damaged material, though, I reckon I'll be able to get a small instrument from what's usable. Instruments such as dulcimers and psalteries are smaller than a typical guitar, so at least there's hope. I'd rather risk this than destroy what remains of some lovely timber. As soundboards typically finish at around 2.5mm thick, hopefully I'll be able to keep a close eye on the situation. Oh yes, and store the completed instrument in a tough, fibreglass case with an appropriate label as a warning to potential winged visitors...



The larva was hastily dispatched and I poked about inside the holes with a pointed bradawl, just in case he had a mate hiding inside



Q&A SPIT & POLISH

Q: I have a couple of bench planes with brass lever caps and these have become rather dull over several years' use. Can you tell me the best way to restore the finish on these?

J Everest, via email

A: Of course, many woodworkers would argue that tools are meant to be used and not kept wrapped in cotton wool! When you've paid a

small fortune for what are premium products, though, it's understandable to want to keep them looking good. And anyone who spends time restoring old tools will probably want them to look their best with minimal effort.

Applying a suitable metal cleaner product normally does the trick, though you may need to first remove light rusting from ferrous metals with steel wool. I've had great results cleaning up tools with Autosol Metal Polish. At around £6 a tube it's not cheap, but a little goes a long way. It apparently leaves an invisible wax coating on surfaces to inhibit corrosion, though paste wax or camellia oil on cast-iron surfaces will



Cleaning tools using Autosol Metal Polish yields great results

also prevent tools rusting. Don't forget to keep threads on screw adjusters lightly oiled, too

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Takes: One weekend
Tools you'll need: Combi drill, router, sander



Having recently rebuilt a fireplace and installed a new woodburner, **Phil Davy** adds a floating mantelshelf in oak, which finishes things off perfectly

Although most new homes won't have a fireplace these days, woodburning stoves remain popular in many older as well as some more recent properties. Many period houses still have an open fire, and if you're a woodworker producing plenty of unwanted offcuts, either this or a woodburner makes a lot of sense. It's always been traditional to have a mantelshelf above the fireplace, somewhere to keep a candlestick or two before the days of gaslights or eventually, electric lighting. These days, however, it's an obvious place to display those treasured family photos and birthday cards, not to mention festive Christmas stockings!

As its name suggests, a mantelshelf is simply the horizontal part of a mantelpiece surrounding the fireplace. Some mantelpieces could be very ornate, and you've only got to visit a few of the grand National Trust properties around the country to get some idea. The fireplace and mantelpiece would often be the focal point of a grand living or reception room, so it needed to reflect the owner's status and wealth – a chance to show off a bit – from elaborately hewn marble or limestone to exquisitely carved mahogany, walnut, oak or pine. In Georgian

and Victorian times, cast-iron and slate became popular materials, too.

In less wealthy residences, the mantelpiece would often be simpler – perhaps no more than a shelf fixed above the fireplace. Function, rather than statement, was typical of farmhouses and cottages in rural areas, so these would often make do with a heavy timber beam.

Floating shelf

Of course, you don't necessarily need to have a fireplace to add a mantelshelf. They can look just as effective across an alcove, even above a flatscreen TV mounted low on the wall. After rebuilding a fireplace and installing a new woodburner some 18 months ago, a planed length of oak was all I needed to complete the work in my living room.

Unless you're going for a rustic look, you'll need to prepare your timber first – my oak finished at 145 x 45mm. You could make a couple of matching supporting brackets, though for a neater, minimalist look it's easier to fit the mantel as a floating shelf. A dense timber such as oak will be heavier than softwood, so check your selected fittings can take the weight. These will also limit the depth of your timber; too deep – front to back – and there could be some movement.

I used steel floating shelf brackets from BespOak Interiors – www.bespOakinteriors.co.uk – which are unique in design. The fixing screw is offset from the barrel, so you can tweak the timber at either end to get it dead level. These offset brackets also help overcome



the problem of their fixing holes not quite lining up, a common problem when drilling into masonry.

My oak was 1,300mm long, so three of BspOak's long multi-wall brackets were more than adequate to support the weight of my mantelshelf. Barrel length of these is 120mm, while 80mm versions are more suitable for shallower shelves.

It's worth mentioning that when fitting a mantelshelf above a woodburner or open fireplace, it must comply with relevant Building Regulations. Critical measurement here is the minimum distance from the stove for any combustible material, which must be at least 300mm. Easily achieved, it's more of an aesthetic choice when deciding on the height. I chose to install my mantelshelf at 1,170mm above the stone hearth.



1 Mark the height of the mantelshelf on the wall. Combustible building materials (such as timber) must not come within 300mm of a woodburner



2 These floating shelf brackets consist of a 12mm steel rod with detachable offset screw. The threaded end fits into a solid wall via a plug



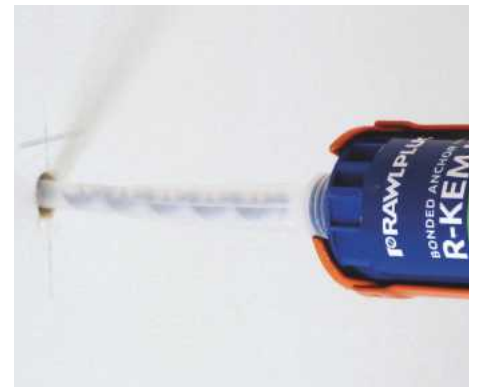
3 Mark the position of each floating shelf bracket on the rear of the oak. Bore 12mm holes with an auger bit, using a small square for accuracy



4 Remove debris and check drilling depth by inserting a bracket into each hole. Tape around the bit acts as a guide to warn you if drilling too deep



5 Insert rods into the rear of the shelf and mark screw tips against the wall. Using a masonry bit, drill 10mm holes for the plastic plugs provided



6 For extra strength, adding resin fixing to each hole is recommended, especially if slightly oversize. After squeezing this in, tap the plugs into the wall



7 Insert a bracket into each plug, driving it home with a 10mm spanner until the end of the rod is tight against the wall. Then allow the resin to dry



8 Slide the shelf onto the brackets, tapping gently from the front with a hammer. Make sure you use scrap wood to prevent denting the surface



9 Check the shelf with a spirit level. The advantage of BespOak brackets is they can be adjusted with a spanner to get the timber dead level



10 Routing a small, decorative chamfer along the front edges and ends adds the finishing touch. Check the depth setting first on scrap timber



11 Sand all exposed surfaces with 180 grit abrasive. Lightly dampen the oak to raise the grain, then lightly sand again by hand



12 Vacuum to remove dust, then apply a suitable clear finish such as oil or polyurethane. I brushed on two coats of Osmo semi-matt Polyx Oil

Coming up in the next issue...

The Woodworker & Good Woodworking
June issue – on sale 21 May

FUNCTIONAL ART IN WOOD

Entirely self-taught and deeply inspired by form and function, Brian A. Hubel believes a piece of furniture should stand on its own and be something you never tire of viewing. Here we find out more about this maker and his creative processes



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Colin Simpson shares the designs for two of his turned natural-edge tubes: one of which is highly polished and the other sandblasted

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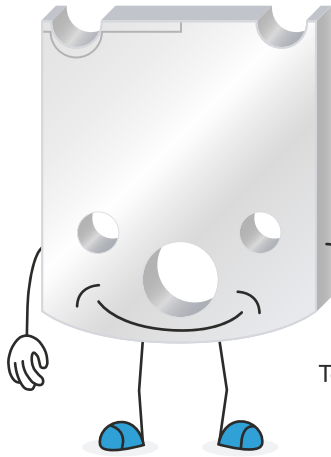
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TAKE

5

This month we bring you another fine selection of pieces by various woodworkers across the globe

1



2



3



4



5



1

Bespoke desk made by Melbourne-based [@paulvizzari_chairmaker](#) with ebonised US oak base and Tasmanian blackwood top and drawer, pictured with his Hoop Chair

2

Banksia pod and redheart turned box by [@roysboxes](#)

3

Collector's cabinet in brown oak (dark) and sycamore (paler) with drawer fronts in solid wenge and legs and drawer handles in solid brass, designed and made by former 50-week [@robinsonhousestudio](#) student [@laurentpeacock](#)

4

Shawn Culley tabletop jewellery cabinet in walnut, maple, ebony and leather with a shellac finish – [@thekrenovschool](#) penultimate project from last semester's fast and intense project class

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